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GROUNDWATER TREATMENT SYSTEM
QUARTERLY MONITORING REPORT
SECOND QUARTER 2002

AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA

MWH File No. 2090601

Table 2.5
revised
8-4-2003

Prepared For:

American Chemical Service NPL Site RD/RA Executive Committee
Griffith, Indiana

Prepared By:

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February 2003

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SECOND QUARTER 2002

AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA

Prepared For:

American Chemical Service NPL Site RD/RA Executive Committee
Griffith, Indiana

Prepared by: _____ for _____ 2/07/03
Travis Klingforth, EIT — Date
Project Engineer

Approved by: _____ February 7, 2003
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1.0 INTRODUCTION

On behalf of the ACS RD/RA Executive Committee, MWH started up the groundwater treatment plant (GWTP) at the American Chemical Service NPL Site (ACS Site) in Griffith, Indiana on March 13, 1997. The GWTP was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, a UV-oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater.

In 2001, an activated sludge treatment process was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required in the treatment process. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

MWH began eight initial rounds of off-gas sampling of the catalytic oxidizer/scrubber described in the PSVP during April 2002. The first four sampling rounds were conducted during the second quarter 2002.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals. This Groundwater Treatment System report summarizes effluent analytical data, catalytic oxidizer/scrubber off-gas analytical data, and water level gauging data collected from April 2002 through June 2002. This report details modifications and upgrades to the GWTP during the reporting period. This report also summarizes the sediment analytical data from the annual sediment sample collected during August 2001 at the wetlands discharge point of the GWTP.

2.0 COMPLIANCE MONITORING

2.1 INTRODUCTION

Effluent samples were collected from the treatment system to demonstrate compliance with the discharge limits (Table 2.1) established by Indiana Department of Environmental Management (IDEM) and United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan (PSVP) requires quarterly effluent sampling for biological oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for VOCs, as shown in the table below. To gather additional information, beyond the requirements of the PSVP, the effluent sampling was conducted on a monthly basis for all analytes. The samples will continue to be collected on a monthly basis until the treatment system is operating in a relatively steady state after completion and optimization of the groundwater treatment plant upgrades.

Sampling and analyses were performed in accordance with the approved Quality Assurance Project Plan (QAPP). Quality control measures were also instituted in accordance with the PSVP and QAPP. The following table and paragraphs present details on sampling and analyses and also summarize the analytical data for the treatment system effluent.

Sampling Frequency Schedule – Groundwater Treatment System

Analytes	Cumulative Time From Startup*	Frequency
Flowrate and pH	–	Continuous
BOD, TSS, SVOCs and Metals	181 days onward	Once per quarter
VOCs	31 days onward	Once per month
PCBs	181 days onward	Once per quarter
PCBs in Sediment (one location)	–	Once per year

*Note: System was started up on March 13, 1997

2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the second quarter 2002. Samples were collected on the following dates for this reporting period:

- April 22, 2002
- May 9, 2002
- June 20, 2002

The above samples were collected directly from a sample tap on the effluent line of the treatment system. The samples were placed in contaminant-free containers, in accordance with the U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the sample containers were refrigerated at or below 4° C in coolers. Chain-of-

Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

Parameter	Analytical Method
VOCs	SW-846 8260B
SVOCs	SW-846 8270C
Pentachlorophenol	SW-846 8270C and SIM
Pesticides/PCBs	EPA 608/SW-846 8081/8082
Metals (Excluding Mercury)	SW-846 6010
General Water Quality Parameters (TSS and BOD-5)	EPA 160.2 and 405.1
Mercury	SW-846 7470
pH	EPA 150.1

The sediment sample and associated quality control samples were analyzed for PCBs using analytical method SW-846-8082.

2.3 EFFLUENT ANALYTICAL RESULTS

GWTP Effluent Samples

The effluent monitoring data, summarized in Table 2.2, verifies that the system effluent was compliant with the discharge limits presented in Table 2.1. No exceedences were reported. The analytical data sheets for the compliance samples are provided in Appendix A.

Compuchem Laboratory of Cary, North Carolina performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Table 2.2 and are written in the margin of the analytical data sheets provided in Appendix A.

Sediment Sample

MWH conducted an investigation of the wetland areas north and west of the ACS site in May 1996 after earlier Remedial Investigations (RI) indicated the presence of PCBs. Locations for soil/sediment samples were selected by representatives of the U.S. EPA and MWH to more clearly delineate the extent and concentrations of PCBs in the wetland. Samples were collected from several locations across the wetlands. Results of this sampling indicated that low level residual PCBs, including Aroclor-1260, were present throughout the wetland. The wetland investigation is documented in the Phase I Technical Memorandum Wetland Investigation (MWH, July 1996) and the Phase II Technical Memorandum Wetland Investigation (MWH, February 1997). A summary of the investigation sampling results and a map of the sampling locations are included in Appendix B.

Since 1998, MWH has collected an annual sediment sample and associated quality control samples from the GWTP outfall in accordance with the PSVP to help determine if PCB accumulation is occurring at the GWTP discharge location. The annual sediment sample for 2002 was collected on June 5, 2002 from the GWTP outfall location shown on Figure 2.1. The sample was analyzed for PCBs by Compuchem and the data was validated by LDC.

Aroclor-1260 was detected in the sample (Compuchem reported an estimated concentration of 41 ug/kg) but not in the field duplicate sample (Compuchem reported non-detect with and 49 ug/kg detection limit). The sample was given a "J" flag by both Compuchem and LDC, indicating that the result was detected below the reporting limit and is an estimated concentration. This result is below the 1,000 ug/kg remediation objective used in the August 2001 PCB-Impacted Soil Wetland Excavation. No other PCBs were detected in either the sample or the field duplicate sample.

The estimated concentration of Aroclor-1260 in the sediment sample collected June 2002 was the first detection of Aroclor-1260 since annual sediment sampling began in 1998, though it was detected during the wetland investigation of May 1996. The field duplicate sample was collected as a split sample, however, and indicated a non-detect concentration of Aroclor-1260. The estimated concentration of Aroclor-1260 is also lower than the detection limit of previous annual samples where Aroclor-1260 has not been detected. This variability makes the trending of PCB concentrations at low levels difficult and inaccurate.

There have been no GWTP effluent exceedences of PCBs since the February 2000 sediment sample, demonstrating that there is little likelihood of PCBs accumulating in the wetlands due to GWTP discharge. MWH will continue to collect annual sediment samples from the GWTP outfall point, according to the PSVP, to monitor for any potential accumulation of PCBs.

A summary of the analytical data for the annual sediment samples, collected in December 1998, February 2000, August 2001, and June 2002 are summarized in Table 2.3. Analytical data for the June 2002 sample are included in Appendix C.

2.4 CATALYTIC OXIDIZER/SCRUBBER OFF-GAS SAMPLING AND RESULTS

Off-Gas Sampling

Influent and effluent off-gas samples were collected from the catalytic oxidizer/scrubber unit (ME-106) in the GWTP four times during the second quarter 2002. These samples consisted of the first four of eight rounds planned for the catalytic oxidizer/scrubber unit. Samples were collected on the following dates:

- April 26, 2002 (Round 1)
- May 22, 2002 (Round 2)
- June 21, 2002 (Round 3)
- June 28, 2002 (Round 4)

The samples were collected directly from a sample tap on the influent and effluent lines of the catalytic oxidizer/scrubber. One influent sample (labeled IN1) and one effluent sample (EF1) were collected. A duplicate influent sample (IN2) was also collected. The samples were collected in accordance with the QAPP and laboratory guidelines. The VOC sample was collected using a summa canister and the SVOC sample was collected in sorbent tubes.

Following sample collection, the SVOC sample containers were refrigerated at or below 4°C in coolers. The VOC samples to be analyzed by method TO-14 do not require refrigeration. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories for extraction and analysis. In accordance with the approved QAPP, the off-gas samples were analyzed for the following parameters by the following analytical methods:

Parameter	Analytical Method
VOCs	TO-14
SVOCs	TO-13

Sampling Results

The influent and effluent off-gas data, summarized in Tables 2.4 and 2.5, verifies that the off-gas from the catalytic oxidizer was less than the IDEM discharge limit of 3 pounds per hour VOC discharge. For example, the VOC discharge reported from the April 26, 2002 sample was 0.03 pounds per hour, approximately one percent of the discharge limit. The analytical data sheets for the compliance samples are provided in Appendix D.

Air Toxics Laboratories of Folsom, California analyzed the samples. The analytical results are summarized in Tables 2.4 and 2.5. MWH performed data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Tables 2.4 and 2.5 and are written in the margin of the analytical data sheets provided in Appendix D.

3.0 TREATMENT SYSTEM PROCESS MODIFICATIONS

The thermal oxidizer/scrubber unit, which is housed inside and next to the GWTP, began operating in April 2002 as part of the Off-Site Area In-Situ Soil Vapor Extraction (ISVE) system. The thermal oxidizer/scrubber unit is not part of the groundwater treatment process; however, it does interact with the GWTP. The scrubber utilizes the treated effluent water from the GWTP to maintain a sufficient water level. By doing so, the amount of city water usage is significantly decreased. This was accomplished by installing a new pump and piping from process tank T-1 to the scrubber. Operation of the pump is interlocked with the catalytic oxidizer programmable logic controller (PLC) and the water level sensors in tank T-1. The pump is enabled based on scrubber demand and an allowable water volume in tank T-1.

The scrubber periodically discharges water to the influent of GWTP for treatment to control the conductivity of the scrubber water. There are two factors that contribute to an increase in the conductivity, the continuous addition of sodium hydroxide and its subsequent reaction with the chlorides in the vapor stream to form sodium chloride. Once the conductivity, which is measured continuously, rises above a setpoint, the scrubber "blows down" a portion of the scrubber water. The "blowdown" is pumped to the gravity phase separator, ME-101, for treatment.

Performance and compliance testing of the thermal oxidizer and scrubber system are performed in conjunction with performance monitoring of the ISVE system and is, therefore, not included in this report.

4.0 PGCS AND BWES GAUGING ACTIVITIES

The PGCS trench groundwater extraction wells were operated in "auto" mode continuously throughout the second quarter 2002. In "auto" mode, each of the PGCS extraction wells is set to turn on or off automatically based on water levels within the Aeration Equalization Tank (T-102) and the individual extraction wells. This mode is used to control the flowrate through the treatment system. The GWTP also received influent from the BWES during the second quarter 2002.

MWH continued to regularly monitor water levels inside the barrier wall. Figure 4.1 shows the water levels as measured on June 28, 2002. Piezometers P29, P31, P32, P36, P49, P106, and P108 in the On-Site Area and P96, P110, P112, P113, P114, P116, and P118 in the Off-Site Area were measured regularly throughout the quarter. The water levels from these piezometers are listed in Table 4.1 and are depicted graphically on Figures 4.2 and 4.3. The target water levels in each area are shown on these figures for reference.

In late 2001, MWH revised the long-term groundwater monitoring program. The revisions included changing the frequency of collecting groundwater levels and analyzing groundwater samples from quarterly basis to a semi-annual basis. In the past, groundwater levels were collected from piezometers outside the barrier wall for the Groundwater Treatment System Quarterly Monitoring Report at the same time as groundwater levels for the groundwater monitoring program. Because of the change in the groundwater monitoring program, water levels from piezometers outside the barrier wall were not collected for the second quarter 2002. Thus, several water level measurements specific to the PSVP, including several piezometers in and around the PGCS, were not collected. This omission of data points specific to the PSVP was not noticed until the third quarter 2002. MWH then updated the LTGMP to include measurement of all PSVP water level locations on a quarterly schedule.

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Table 2.1
Groundwater Treatment System Effluent Discharge Limits
American Chemical Service NPL Site
Griffith, Indiana

Groundwater Quality Parameter	Effluent Standard (Limit)
General Water Quality Parameters	
PH	6 - 9 S.U.
BOD-5	30 mg/L
TSS	30 mg/L
Inorganics	
Arsenic	50 µg/L
Beryllium	NE
Cadmium	4.1 µg/L
Manganese	NE
Mercury	0.02 µg/L (w/DL = 0.64)
Selenium	8.2 µg/L
Thallium	NE
Zinc	411 µg/L
Volatile Organics	
Acetone	6,800 µg/L
Benzene	5 µg/L
2-Butanone	210 µg/L
Chloromethane	NE
1,4 – Dichlorobenzene	NE
1,1 – Dichloroethane	NE
1,2 – Dichloroethene – cis	70 µg/L
Ethylbenzene	34 µg/L
Methylene chloride	5 µg/L
Tetrachloroethene	5 µg/L
Trichloroethene	5 µg/L
Vinyl chloride	2 µg/L
4 – Methyl - 2 – pentanone	15 µg/L
Semi-Volatile Organics	
bis(2 – Chloroethyl) ether	9.6 µg/L
bis(2 – Ethylhexyl) phthalate	6 µg/L
Isophorone	50 µg/L
4 – Methylphenol	34 µg/L
Pentachlorophenol	1 µg/L
PCBs	
PCBs	0.00056 µg/L (w/DL = 0.1 to 0.9)

Notes:
NE = No effluent limit established.
DL = Detection limit

Table 2.2
Summary of Effluent Analytical Results - Second Quarter 2002
Groundwater Treatment System
American Chemical Service NPL Site
Griffith, Indiana

Event Date	Month 59 4/22/02	Month 60 5/9/02	Month 61 6/20/02	Effluent Limits	Lab Reporting Limits
pH	7.96	7.83	7.13 /J	6-9	none
TSS	ND	ND	1.2	30	10
BOD	ND	ND	24	30	2
Arsenic	ND	ND	ND	50	3.4
Beryllium	ND	0.21 B/UB	ND	NE	0.2
Cadmium	ND	ND	ND	4.1	0.3
Manganese	14.4	8.9 B/	24.5	NE	10
Mercury	ND	ND	ND	0.02 (w/DL = 0.64)	0.64
Selenium	ND	ND	ND	8.2	4.3
Thallium	ND	ND	ND	NE	5.7
Zinc	7.1 B/UB	ND	3.9 B/	411	1.2
Benzene	ND	ND	ND	5	0.5
Acetone	1 JB/	ND /UJ	4 B/UBJ	6,800	3
2-Butanone	ND	ND	ND /UJ	210	3
Chloromethane	0.1 J/3 UBJ	ND	0.2 J/J	NE	0.5
1,4-Dichlorobenzene	ND	ND	ND	NE	0.5
1,1-Dichloroethane	ND	ND	ND	NE	0.5
cis-1,2-Dichloroethene	ND	ND	ND	70	0.5
Ethylbenzene	ND	ND	ND	34	0.5
Methylene chloride	0.1 J/	ND	1 B/UBJ	5	0.6
Tetrachloroethene	0.05 JB/0.5 UB	ND	ND	5	0.5
Trichloroethene	ND	ND	ND	5	0.5
Vinyl chloride	ND	ND	ND	2	0.5
4-Methyl-2-pentanone	ND	ND /UJ	ND	15	3
bis (2-Chloroethyl) ether	ND	ND	ND	9.6	9.6
bis(2-Ethylhexyl) - phthalate	0.91 JB/6 UB	ND	4 JB/UB	6	6
4 - Methylphenol	ND	ND	ND	34	10
Isophorone	ND	ND /UJ	ND	50	10
Pentachlorophenol	ND	ND	ND	1	1
PCB/Aroclor-1016	ND	ND	ND	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1221	ND	ND	ND	0.00056 (w/DL = 0.1 to 0.9)	0.92*
PCB/Aroclor-1232	ND	ND	ND	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1242	ND	ND	ND /UJ	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1248	ND	ND	ND /UJ	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1254	ND	ND	ND /UJ	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1260	ND	ND	ND /UJ	0.00056 (w/DL = 0.1 to 0.9)	0.5

Notes:

Data has been validated in accordance with the Project QAPP (November 2001) and the U.S. EPA National Functional Guidelines for Organic Data Review

Shaded cells indicate discharge exceedances

pH data is expressed in S.U.

TSS and BOD5 data is expressed in mg/L

Metals, VOC, SVOC and PCB data is expressed in ug/L

ND = Not detected

NE = No effluent limit established

NA = Sample not analyzed for this compound

* = Approved SW-846 method is incapable of achieving effluent limit

Suffix Definitions

_/ = Data qualifier added by laboratory

/_ = Data qualifier added by data validator

B = Compound is also detected in the blank

E = Compound exceeds the upper level of calibration range of instrument

J = Result is detected below the reporting limit and is an estimated concentration

JB = Analyte is detected in the compliance sample below the reporting limit and is an estimated concentration and the compound is also detected in the method blank resulting in a potential high bias

U = Analyte is not detected at or above the indicated concentration

UB = Analyte is not detected at or above the indicated concentration due to blank contamination

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value

Table 2.3
Summary of Sediment Analytical Results
Groundwater Treatment System
American Chemical Service NPL Site
Griffith, Indiana

PCB Compound	Results (ug/kg)						
	12/4/98	2/3/00	2/3/00 DUP	8/21/01	8/21/01 DUP	6/5/02	6/5/02 DUP
Aroclor-1016	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71)	ND (52) /UJ	ND (49)
Aroclor-1221	ND (33)	ND (77)	ND (100)	ND (82) /UJ	ND (92)	ND (67) /UJ	ND (64)
Aroclor-1232	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71)	ND (52) /UJ	ND (49)
Aroclor-1242	ND (33)	ND (41)	ND (55)	ND (43) /UJ	ND (49) /UJ	ND (36) /UJ	ND (34)
Aroclor-1248	ND (33)	ND (41)	ND (55)	ND (43) /UJ	ND (49) /UJ	ND (36) /UJ	ND (34)
Aroclor-1254	ND (33)	22 J/	15 J/	73 P/J	39 JP/J	ND (36) /UJ	ND (34)
Aroclor-1260	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71) /UJ	41 J/J	ND (49)
Total PCBs	***ND***	***22***	***15***	***73***	***39***	***41***	***ND***

Notes
1. ND (_) = Compound was not detected. The detection limit is included in parentheses
2. December 4, 1998 sample was analyzed by Quanterra
   All other samples were analyzed by Compuchem
3. DUP = Duplicate sample

Suffix Definitions
_/ = Data qualifier added by laboratory
/_ = Data qualifier added by data validator
B = Compound is also detected in the blank
J = Result is detected below the reporting limit and is an estimated concentration
P = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported.
JB = Analyte is detected in the sample below the reporting limit and is an estimated concentration. The compound is also detected in the method blank resulting in a potential high bias
UB = Analyte is not detected at or above the indicated concentration due to blank contamination
UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
JP = Result is detected below the reporting limit and is an estimated concentration. Also, the Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported

Table 2.4
Summary of Catalytic Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 1 - Sampled 4/26/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low	High	Average
Method TO-14							
Chloromethane	ppbv	ND	ND	240	NC	NC	NC
Vinyl Chloride	ppbv	2,900	7,300	350	87.93%	95.21%	91.57%
Bromomethane	ppbv	ND	ND	ND	NC	NC	NC
Chloroethane	ppbv	2,200	6,600	170	92.27%	97.42%	94.85%
1,1-Dichloroethene	ppbv	24 J/J	410	24	NC	94.15%	94.15%
Methylene Chloride	ppbv	3,100	88,000	440	85.81%	99.50%	92.65%
1,1-Dichloroethane	ppbv	1,000	20,000	74	92.60%	99.63%	96.12%
cis-1,2-Dichloroethene	ppbv	10,000	9,700	880	90.93%	91.20%	91.06%
Chloroform	ppbv	ND	2,000	ND	100.00%	100.00%	100.00%
1,1,1-Trichloroethane	ppbv	270	53,000	13	95.19%	99.98%	97.58%
Carbon Tetrachloride	ppbv	ND	ND	ND	NC	NC	NC
Benzene	ppbv	14,000	33,000	1,500	89.29%	95.45%	92.37%
1,2-Dichloroethane	ppbv	310	1,000	32	89.68%	96.80%	93.24%
Trichloroethene	ppbv	65	18,000	7.1	89.08%	99.96%	94.52%
1,2-Dichloropropane	ppbv	110	270 J/J	7.4	93.27%	NC	93.27%
cis-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
Toluene	ppbv	10,000	100,000	750	92.50%	99.25%	95.88%
trans-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
1,1,2-Trichloroethane	ppbv	20 J/J	ND	2.0 J/J	NC	NC	NC
Tetrachloroethene	ppbv	23 J/J	6,800	5.3 J/J	NC	NC	NC
Chlorobenzene	ppbv	920	ND	110	NC	88.04%	88.04%
Ethylbenzene	ppbv	1,600	7,100	100	93.75%	98.59%	96.17%
m,p-Xylene	ppbv	7,700	26,000	480	93.77%	98.15%	95.96%
o-Xylene	ppbv	2,500	7,300	160	93.60%	97.81%	95.70%
Styrene	ppbv	ND	ND	19	NC	NC	NC
1,1,2,2-Tetrachloroethane	ppbv	ND	ND	ND	NC	NC	NC
Acetone	ppbv	610	16,000	88	85.57%	99.45%	92.51%
Carbon Disulfide	ppbv	ND	ND	ND	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	ND	ND	54	NC	NC	NC
2-Butanone (MEK)	ppbv	340	15,000	27	92.06%	99.82%	95.94%
Bromodichloromethane	ppbv	ND	ND	ND	NC	NC	NC
4-Methyl-2-pentanone	ppbv	410	3,800	21 J/J	NC	NC	NC
2-Hexanone	ppbv	ND	ND	ND	NC	NC	NC
Dibromochloromethane	ppbv	ND	ND	ND	NC	NC	NC
Bromoform	ppbv	ND	ND	ND	NC	NC	NC
Total	**ppbv**	**58,035**	**421,010**	**5,526**	**90.48%**	**98.69%**	**94.58%**
Total	**lb/hr**	**0.324**	**2.527**	**0.030**	**NC**	**NC**	**NC**
IDEM Discharge Requirement	**lb/hr**			**3**			

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
NC - Not calculated
ND - Non-detect
ppbv - parts per billion volume
Destruction efficiency is not calculated where influent and/or effluent values are estimated
Total VOCs in lb/hr calculation based on air flow rate of V = 400 acfm

Qualifiers:
J - Result is estimated

Table 2.4
Summary of Catalytic Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 2 - Sampled 5/22/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low	High	Average
Method TO-14							
Chloromethane	ppbv	ND	ND	17	NC	NC	NC
Vinyl Chloride	ppbv	540	410	57	86.10%	89.44%	87.77%
Bromomethane	ppbv	ND	ND	ND	NC	NC	NC
Chloroethane	ppbv	280	210	18	91.43%	93.57%	92.50%
1,1-Dichloroethene	ppbv	4.9 J/J	3.7 J/J	6.1	NC	NC	NC
Methylene Chloride	ppbv	420	360	49	86.39%	88.33%	87.36%
1,1-Dichloroethane	ppbv	210	170	14	91.76%	93.33%	92.55%
cis-1,2-Dichloroethene	ppbv	2,300	1,900	180	90.53%	92.17%	91.35%
Chlororform	ppbv	3.8 J/J	3.1 J/J	0.54 J/J	NC	NC	NC
1,1,1-Trichloroethane	ppbv	54	40	3.1	92.25%	94.26%	93.25%
Carbon Tetrachloride	ppbv	ND	1.9 J/J	ND	NC	NC	NC
Benzene	ppbv	2,200	1,800	240	86.67%	89.09%	87.88%
1,2-Dichloroethane	ppbv	53	46	5.4	88.26%	89.81%	89.04%
Trichloroethene	ppbv	6.3 J/J	5.4 J/J	0.8	NC	NC	NC
1,2-Dichloropropane	ppbv	22	20	1.4	93.00%	93.64%	93.32%
cis-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
Toluene	ppbv	1,700	1,400	120	91.43%	92.94%	92.18%
trans-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
1,1,2-Trichloroethane	ppbv	7.2 J/J	6.0 J/J	0.61 J/J	NC	NC	NC
Tetrachloroethene	ppbv	ND	ND	0.30 J/J	NC	NC	NC
Chlorobenzene	ppbv	200	170	23	86.47%	88.50%	87.49%
Ethylbenzene	ppbv	410	350	20	94.29%	95.12%	94.70%
m,p-Xylene	ppbv	1,700	1,400	74	94.71%	95.65%	95.18%
o-Xylene	ppbv	580	520	26	95.00%	95.52%	95.26%
Styrene	ppbv	ND	ND	3.8	NC	NC	NC
1,1,2,2-Tetrachloroethane	ppbv	3.5 J/J	2.7 J/J	0.33 J/J	NC	NC	NC
Acetone	ppbv	1,100	1,100	92	91.64%	91.64%	91.64%
Carbon Disulfide	ppbv	ND	ND	0.31 J/J	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	ND	ND	8.5	NC	NC	NC
2-Butanone (MEK)	ppbv	630	630	34	94.60%	94.60%	94.60%
Bromodichloromethane	ppbv	ND	ND	ND	NC	NC	NC
4-Methyl-2-pentanone	ppbv	440	440	15	96.59%	96.59%	96.59%
2-Hexanone	ppbv	13 J/J	12 J/J	0.46 J/J	NC	NC	NC
Dibromochloromethane	ppbv	ND	ND	ND	NC	NC	NC
Bromoform	ppbv	ND /UJ	ND /UJ	ND /UJ	NC	NC	NC
Total	**ppbv**	**12,839**	**10,966**	**1,008**	**92.15%**	**90.81%**	**91.48%**
Total	**lb/hr**	**0.069**	**0.059**	**0.005**	**NC**	**NC**	**NC**
IDEM Discharge Requirement	**lb/hr**	3					

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
NC - Not calculated
ND - Non-detect
ppbv - parts per billion volume
Destruction efficiency is not calculated where influent and/or effluent values are estimated.
Total VOCs in lb/hr calculation based on air flow rate of V = 390 acfm

Qualifiers:
J - Result is estimated

Table 2.4
Summary of Catalytic Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 3 - Sampled 6/21/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low	High	Average
Method TO-14							
Chloromethane	ppbv	ND	ND	170	NC	NC	NC
Vinyl Chloride	ppbv	2,600	2,600	290	88.85%	88.85%	88.85%
Bromomethane	ppbv	ND	ND	ND	NC	NC	NC
Chloroethane	ppbv	1,700	1,700	130	92.35%	92.35%	92.35%
1,1-Dichloroethene	ppbv	28 J/J	23 J/J	26 J/J	NC	NC	NC
Methylene Chloride	ppbv	1,700	1,600	210	86.88%	87.65%	87.26%
1,1-Dichloroethane	ppbv	890	860	54	93.72%	93.93%	93.83%
cis-1,2-Dichloroethene	ppbv	9,400	9,200	750	91.85%	92.02%	91.93%
Chlororform	ppbv	15 J/J	ND	ND	NC	NC	NC
1,1,1-Trichloroethane	ppbv	300	290	12 J/J	NC	NC	NC
Carbon Tetrachloride	ppbv	ND	ND	ND	NC	NC	NC
Benzene	ppbv	15,000	15,000	1,400	90.67%	90.67%	90.67%
1,2-Dichloroethane	ppbv	ND	ND	ND	NC	NC	NC
Trichloroethene	ppbv	63 J/J	60 J/J	9.0 J/J	NC	NC	NC
1,2-Dichloropropane	ppbv	78	78	7.7 J/J	NC	NC	NC
cis-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
Toluene	ppbv	8,500	8,400	570	93.21%	93.29%	93.25%
trans-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND	ND	ND	NC	NC	NC
Tetrachloroethene	ppbv	19 J/J	17 J/J	5.3 J/J	NC	NC	NC
Chlorobenzene	ppbv	740	750	89	88.13%	87.97%	88.05%
Ethylbenzene	ppbv	1,700	1,700	84	95.06%	95.06%	95.06%
m,p-Xylene	ppbv	8,900	8,700	360	95.86%	95.96%	95.91%
o-Xylene	ppbv	2,800	2,700	120	95.56%	95.71%	95.63%
Styrene	ppbv	ND	ND	22 J/J	NC	NC	NC
1,1,2,2-Tetrachloroethane	ppbv	ND	ND	ND	NC	NC	NC
Acetone	ppbv	1,200	1,100	200	81.82%	83.33%	82.58%
Carbon Disulfide	ppbv	ND	ND	ND	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	60 J/J	ND	86 J/J	NC	NC	NC
2-Butanone (MEK)	ppbv	610	580	8,300	NC	NC	NC
Bromodichloromethane	ppbv	ND	ND	ND	NC	NC	NC
4-Methyl-2-pentanone	ppbv	490	420	22 J/J	NC	NC	NC
2-Hexanone	ppbv	ND	ND	ND	NC	NC	NC
Dibromochloromethane	ppbv	ND	ND	ND	NC	NC	NC
Bromoform	ppbv	ND	ND	ND	NC	NC	NC
Total	**ppbv**	**56,608**	**55,678**	**12,727**	**77.14%**	**77.52%**	**77.33%**
Total	**lb/hr**	**0.254**	**0.249**	**0.049**	**NC**	**NC**	**NC**
IDEM Discharge Requirement	**lb/hr**			**3**			

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
NC - Not calculated
ND - Non-detect
ppbv - parts per billion volume
Destruction efficiency is not calculated where influent and/or effluent values are estimated
Total VOCs in lb/hr calculation based on air flow rate of V = 320 acfm

Qualifiers:
J - Result is estimated

Table 2.4
Summary of Catalytic Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 4 - Sampled 6/28/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low	High	Average
Method TO-14							
Chloromethane	ppbv	ND	ND	180	NC	NC	NC
Vinyl Chloride	ppbv	3,900	4,600	440	88.72%	90.43%	89.58%
Bromomethane	ppbv	ND	ND	ND	NC	NC	NC
Chloroethane	ppbv	2,000	2,300	170	91.50%	92.61%	92.05%
1,1-Dichloroethene	ppbv	25 J/J	29 J/J	32	NC	NC	NC
Methylene Chloride	ppbv	860	1,200	130	84.88%	89.17%	87.03%
1,1-Dichloroethane	ppbv	780	970	58	92.56%	94.02%	93.29%
cis-1,2-Dichloroethene	ppbv	7,700	10,000	810	89.48%	91.90%	90.69%
Chlororform	ppbv	12 J/J	13 J/J	1.2 J/J	NC	NC	NC
1,1,1-Trichloroethane	ppbv	340	410	15	95.59%	96.34%	95.96%
Carbon Tetrachloride	ppbv	ND	ND	ND_	NC	NC	NC
Benzene	ppbv	14,000	17,000	(1,700 ✓	87.86%	90.00%	88.93%
1,2-Dichloroethane	ppbv	ND	ND	ND	NC	NC	NC
Trichloroethene	ppbv	68	89	8.4	87.65%	90.56%	89.10%
1,2-Dichloropropane	ppbv	60 J/J	87	4.5 J/J	NC	NC	NC
cis-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
Toluene	ppbv	7,600	12,000	640	91.58%	94.67%	93.12%
trans-1,3-Dichloropropene	ppbv	ND	ND	ND	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND	ND	ND	NC	NC	NC
Tetrachloroethene	ppbv	31 J/J	31 J/J	6.9 J/J	NC	NC	NC
Chlorobenzene	ppbv	570	820	80	85.96%	90.24%	88.10%
Ethylbenzene	ppbv	1,600	2,300	93	94.19%	95.96%	95.07%
m,p-Xylene	ppbv	8,400	12,000	460	94.52%	96.17%	95.35%
o-Xylene	ppbv	2,200	3,300	130	94.09%	96.06%	95.08%
Styrene	ppbv	63 J/J	ND	22	NC	NC	NC
1,1,2,2-Tetrachloroethane	ppbv	ND	ND	ND	NC	NC	NC
Acetone	ppbv	350	400	48	86.29%	88.00%	87.14%
Carbon Disulfide	ppbv	ND	ND	7.2 J/J	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	ND	ND	54	NC	NC	NC
2-Butanone (MEK)	ppbv	200 J/J	240 J/J	32	NC	NC	NC
Bromodichloromethane	ppbv	ND	ND	ND	NC	NC	NC
4-Methyl-2-pentanone	ppbv	240 J/J	330	10 J/J	NC	NC	NC
2-Hexanone	ppbv	ND	ND	ND	NC	NC	NC
Dibromochloromethane	ppbv	ND	ND	ND	NC	NC	NC
Bromoform	ppbv	ND	ND	ND	NC	NC	NC
Total	**ppbv**	**50,368**	**67,806**	**5,102**	**89.87%**	**92.48%**	**91.17%**
Total	**lb/hr**	**0.240**	**0.325**	**0.023**	**NC**	**NC**	**NC**
IDEM Discharge Requirement	**lb/hr**			**3**			

high

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
NC - Not calculated
ND - Non-detect
ppbv - parts per billion volume
Destruction efficiency is not calculated where influent and/or effluent values are estimated.
Total VOCs in lb/hr calculation based on air flow rate of V = 340 acfm

Qualifiers:
J - Result is estimated

Table 2.5
Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 1 - Sampled 4/26/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low (%)	High (%)	Average (%)
Method TO-13							
Phenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethyl)ether	µg	ND	ND	ND	NC	NC	NC
2-Chlorophenol	µg	ND	ND	ND	NC	NC	NC
1,3-Dichlorobenzene	µg	0.88 J/J	ND	ND	NC	NC	NC
1,4-Dichlorobenzene	µg	12	ND	1.0	NC	91.67%	91.67%
1,2-Dichlorobenzene	µg	21	3.9	1.6	58.97%	92.38%	75.68%
2-Methylphenol (o-Cresol)	µg	ND	ND	ND	NC	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	ND	ND	NC	NC	NC
4-Methylphenol	µg	ND	ND	ND	NC	NC	NC
Hexachloroethane	µg	ND	ND	ND	NC	NC	NC
Nitrobenzene	µg	ND	ND	ND	NC	NC	NC
Isophorone	µg	ND	ND	ND	NC	NC	NC
2-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dimethylphenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	ND	ND	NC	NC	NC
2,4-dichlorophenol	µg	ND	ND	ND	NC	NC	NC
1,2,4-Trichlorobenzene	µg	0.75 J/J	ND	ND	NC	NC	NC
Naphthalene	µg	18	6.2	0.97 J/J	NC	NC	NC
4-Chloroaniline	µg	ND	ND	ND	NC	NC	NC
Hexachlorobutadiene	µg	ND	ND	ND	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	ND	ND	NC	NC	NC
2-Methylnaphthalene	µg	5.4	ND	ND	NC	100.00%	NC
Hexachlorocyclopentadiene	µg	ND	ND	ND	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2-Chloronaphthalene	µg	ND	ND	ND	NC	NC	NC
2-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Dimethylphthalate	µg	ND	ND	ND	NC	NC	NC
Acenaphthylene	µg	ND	ND	ND	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
3-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Acenaphthene	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrophenol	µg	ND	ND	ND	NC	NC	NC
4-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
Dibenzofuran	µg	ND	ND	ND	NC	NC	NC
Diethylphthalate	µg	ND	ND	ND	NC	NC	NC
Fluorene	µg	ND	ND	ND	NC	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
4-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	ND	ND	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	ND	ND	NC	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
Hexachlorobenzene	µg	ND	ND	ND	NC	NC	NC
Pentachlorophenol	µg	ND	ND	ND	NC	NC	NC
Phenanthrene	µg	ND	ND	ND	NC	NC	NC
Anthracene	µg	ND	ND	ND	NC	NC	NC
di-n-Butylphthalate	µg	ND	ND	ND	NC	NC	NC
Fluoranthene	µg	ND	ND	ND	NC	NC	NC
Pyrene	µg	ND	ND	ND	NC	NC	NC
Butylbenzylphthalate	µg	ND	ND	ND	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	ND	ND	NC	NC	NC
Chrysene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)anthracene	µg	ND	ND	ND	NC	NC	NC
bis(2-Ethylhexyl)phthalate	µg	2 J/J	ND	1.2 J/J	NC	NC	NC
Di-n-Octylphthalate	µg	ND	ND	ND	NC	NC	NC
Benzo(b)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(k)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)pyrene	µg	ND	ND	ND	NC	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	ND	ND	NC	NC	NC
Dibenz(a,h)anthracene	µg	ND	ND	ND	NC	NC	NC
Benzo(g,h,i)perylene	µg	ND	ND	ND	NC	NC	NC
Total	µg	**56.40**	**10.10**	**2.60**	**74.26%**	**95.39%**	**84.82%**

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
µg - Microgram
NC - Not calculated
ND - Non-detect
Destruction efficiency is not calculated where influent and/or effluent values are estimated.
1 The low destruction efficiency was not calculated because no SVOC compounds were detected in IN2.

Qualifiers:
J - Result is estimated

LRH/IJ/RHS/JDP/RAA
J:\209\0603\0301 GWTP\6030301a014.xls\Report Table TO-13-CO

Table 2.5
Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 2 - Sampled 5/22/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low (%)	High (%)	Average (%)
Method TO-13							
Phenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethyl)ether	µg	0.87 J/J	0.70 J/J	ND	NC	NC	NC
2-Chlorophenol	µg	ND	ND	ND	NC	NC	NC
1,3-Dichlorobenzene	µg	0.50 J/J	ND	ND	NC	NC	NC
1,4-Dichlorobenzene	µg	6.3	4.4	ND	100.00%	100.00%	100.00%
1,2-Dichlorobenzene	µg	13	9.2	ND	100.00%	100.00%	100.00%
2-Methylphenol (o-Cresol)	µg	ND	ND	ND	NC	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	ND	ND	NC	NC	NC
4-Methylphenol	µg	ND	ND	ND	NC	NC	NC
Hexachloroethane	µg	ND	ND	ND	NC	NC	NC
Nitrobenzene	µg	ND	ND	ND	NC	NC	NC
Isophorone	µg	ND	ND	ND	NC	NC	NC
2-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dimethylphenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	ND	ND	NC	NC	NC
2,4-dichlorophenol	µg	ND	ND	ND	NC	NC	NC
1,2,4-Trichlorobenzene	µg	1.6	1.2	ND	100.00%	100.00%	100.00%
Naphthalene	µg	29	23	ND	100.00%	100.00%	100.00%
4-Chloroaniline	µg	ND	ND	ND	NC	NC	NC
Hexachlorobutadiene	µg	ND	ND	ND	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	ND	ND	NC	NC	NC
2-Methylnaphthalene	µg	9.4	7.2	ND	100.00%	100.00%	100.00%
Hexachlorocyclopentadiene	µg	ND	ND	ND	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2-Chloronaphthalene	µg	ND	ND	ND	NC	NC	NC
2-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Dimethylphthalate	µg	ND	ND	ND	NC	NC	NC
Acenaphthylene	µg	ND	ND	ND	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
3-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Acenaphthene	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrophenol	µg	ND	ND	ND	NC	NC	NC
4-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
Dibenzofuran	µg	ND	ND	ND	NC	NC	NC
Diethylphthalate	µg	ND	ND	ND	NC	NC	NC
Fluorene	µg	ND	ND	ND	NC	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
4-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	ND	ND	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	ND	ND	NC	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
Hexachlorobenzene	µg	ND	ND	ND	NC	NC	NC
Pentachlorophenol	µg	ND	ND	ND	NC	NC	NC
Phenanthrene	µg	ND	ND	ND	NC	NC	NC
Anthracene	µg	ND	ND	ND	NC	NC	NC
di-n-Butylphthalate	µg	0.85 J/J	0.81 J/J	ND	NC	NC	NC
Fluoranthene	µg	ND	ND	ND	NC	NC	NC
Pyrene	µg	ND	ND	ND	NC	NC	NC
Butylbenzylphthalate	µg	ND	ND	ND	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	ND	ND	NC	NC	NC
Chrysene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)anthracene	µg	ND	ND	ND	NC	NC	NC
bis(2-Ethylhexyl)phthalate	µg	ND	ND	ND	NC	NC	NC
Di-n-Octylphthalate	µg	ND	ND	ND	NC	NC	NC
Benzo(b)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(k)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)pyrene	µg	ND	ND	ND	NC	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	ND	ND	NC	NC	NC
Dibenz(a,h)anthracene	µg	ND	ND	ND	NC	NC	NC
Benzo(g,h,i)perylene	µg	ND	ND	ND	NC	NC	NC
Total	µg	**59.30**	**45.00**	**ND**	**100.00%**	**100.00%**	**100.00%**

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
µg - Microgram
NC - Not calculated
ND - Non-detect
Destruction efficiency is not calculated where influent and/or effluent values are estimated
1. The low destruction efficiency was not calculated because no SVOC compounds were detected in IN2

Qualifiers:
J - Result is estimated

Table 2.5
Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 3 - Sampled 6/21/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low (%)	High (%)	Average (%)
Method TO-13							
Phenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethyl)ether	µg	ND	1.2	ND	NC	NC	NC
2-Chlorophenol	µg	ND	ND	ND	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	3.0	ND	NC	100.00%	NC
1,4-Dichlorobenzene	µg	3.4	32	0.75 J/J	NC	NC	NC
1,2-Dichlorobenzene	µg	6.1	56	1.2	80.33%	97.86%	89.09%
2-Methylphenol (o-Cresol)	µg	ND	ND	ND	NC	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	ND	ND	NC	NC	NC
4-Methylphenol	µg	ND	ND	ND	NC	NC	NC
Hexachloroethane	µg	ND	ND	ND	NC	NC	NC
Nitrobenzene	µg	ND	ND	ND	NC	NC	NC
Isophorone	µg	ND	ND	ND	NC	NC	NC
2-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dimethylphenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	ND	ND	NC	NC	NC
2,4-dichlorophenol	µg	ND	ND	ND	NC	NC	NC
1,2,4-Trichlorobenzene	µg	0.66 J/J	7.1	ND	NC	100.00%	NC
Naphthalene	µg	2.8	27	ND	100.00%	100.00%	100.00%
4-Chloroaniline	µg	ND	ND	ND	NC	NC	NC
Hexachlorobutadiene	µg	ND	ND	ND	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	ND	ND	NC	NC	NC
2-Methylnaphthalene	µg	1.4	15	ND	100.00%	100.00%	100.00%
Hexachlorocyclopentadiene	µg	ND	ND	ND	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2-Chloronaphthalene	µg	ND	ND	ND	NC	NC	NC
2-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Dimethylphthalate	µg	ND	ND	ND	NC	NC	NC
Acenaphthylene	µg	ND	ND	ND	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
3-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Acenaphthene	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrophenol	µg	ND	ND	ND	NC	NC	NC
4-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
Dibenzofuran	µg	ND	ND	ND	NC	NC	NC
Diethylphthalate	µg	0.37 J/J	0.43 J/J	0.34 J/J	NC	NC	NC
Fluorene	µg	ND	ND	ND	NC	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
4-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	ND	ND	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	ND	ND	NC	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
Hexachlorobenzene	µg	ND	ND	ND	NC	NC	NC
Pentachlorophenol	µg	ND	ND	ND	NC	NC	NC
Phenanthrene	µg	ND	ND	ND	NC	NC	NC
Anthracene	µg	ND	ND	ND	NC	NC	NC
di-n-Butylphthalate	µg	ND	1.4 J/J	ND	NC	NC	NC
Fluoranthene	µg	ND	ND	ND	NC	NC	NC
Pyrene	µg	ND	ND	ND	NC	NC	NC
Butylbenzylphthalate	µg	ND	ND	ND	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	ND	ND	NC	NC	NC
Chrysene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)anthracene	µg	ND	ND	ND	NC	NC	NC
bis(2-Ethylhexyl)phthalate	µg	2.0 J/J	1.9 J/J	6.1	NC	NC	NC
Di-n-Octylphthalate	µg	ND	ND	ND	NC	NC	NC
Benzo(b)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(k)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)pyrene	µg	ND	ND	ND	NC	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	ND	ND	NC	NC	NC
Dibenz(a,h)anthracene	µg	ND	ND	ND	NC	NC	NC
Benzo(g,h,i)perylene	µg	ND	ND	ND	NC	NC	NC
Total	**µg**	**13.70**	**141.30**	**7.30**	**46.72%**	**94.83%**	**70.77%**

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
µg - Microgram
NC - Not calculated
ND - Non-detect

Qualifiers:
J - Result is estimated
JB - Analyte is detected in the method blank resulting in potential bias high. Reported concentration is estimated

Destruction efficiency is not calculated where influent and/or effluent values are estimated.
1. The low destruction efficiency was not calculated because no SVOC compounds were detected in IN2

Table 2.5
Summary of Catalytic Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13)
Second Quarter 2002
American Chemical Service, Griffith, Indiana

		Round 4 - Sampled 6/28/02					
		Analytical Data			Destruction Efficiency		
Compounds	Units	Influent IN1	Influent IN2	Effluent EF1	Low (%)	High (%)	Average (%)
Method TO-13							
Phenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethyl)ether	µg	1.7	ND	ND	NC	100.00%	NC
2-Chlorophenol	µg	ND	ND	ND	NC	NC	NC
1,3-Dichlorobenzene	µg	2.7	ND	ND	NC	100.00%	NC
1,4-Dichlorobenzene	µg	27	ND	1.5	NC	94.44%	NC
1,2-Dichlorobenzene	µg	46	ND	2.3	NC	95.00%	NC
2-Methylphenol (o-Cresol)	µg	ND	ND	ND	NC	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	ND	ND	NC	NC	NC
4-Methylphenol	µg	ND	ND	ND	NC	NC	NC
Hexachloroethane	µg	ND	ND	ND	NC	NC	NC
Nitrobenzene	µg	ND	ND	ND	NC	NC	NC
Isophorone	µg	ND	ND	ND	NC	NC	NC
2-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dimethylphenol	µg	ND	ND	ND	NC	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	ND	ND	NC	NC	NC
2,4-dichlorophenol	µg	ND	ND	ND	NC	NC	NC
1,2,4-Trichlorobenzene	µg	6.2	ND	0.38 J/J	NC	NC	NC
Naphthalene	µg	13	ND	0.41 J/J	NC	NC	NC
4-Chloroaniline	µg	ND	ND	ND	NC	NC	NC
Hexachlorobutadiene	µg	ND	ND	ND	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	ND	ND	NC	NC	NC
2-Methylnaphthalene	µg	6.9	ND	ND	NC	100.00%	NC
Hexachlorocyclopentadiene	µg	ND	ND	ND	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	ND	ND	NC	NC	NC
2-Chloronaphthalene	µg	ND	ND	ND	NC	NC	NC
2-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Dimethylphthalate	µg	ND	ND	ND	NC	NC	NC
Acenaphthylene	µg	ND	ND	ND	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
3-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
Acenaphthene	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrophenol	µg	ND	ND	ND	NC	NC	NC
4-Nitrophenol	µg	ND	ND	ND	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	ND	ND	NC	NC	NC
Dibenzofuran	µg	ND	ND	ND	NC	NC	NC
Diethylphthalate	µg	0.52 J/JB	ND	0.47 J/JB	NC	NC	NC
Fluorene	µg	ND	ND	ND	NC	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
4-Nitroaniline	µg	ND	ND	ND	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	ND	ND	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	ND	ND	NC	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	ND	ND	NC	NC	NC
Hexachlorobenzene	µg	ND	ND	ND	NC	NC	NC
Pentachlorophenol	µg	ND	ND	ND	NC	NC	NC
Phenanthrene	µg	ND	ND	ND	NC	NC	NC
Anthracene	µg	ND	ND	ND	NC	NC	NC
di-n-Butylphthalate	µg	1.2 J/J	ND	ND	NC	NC	NC
Fluoranthene	µg	ND	ND	ND	NC	NC	NC
Pyrene	µg	ND	ND	ND	NC	NC	NC
Butylbenzylphthalate	µg	ND	ND	ND	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	ND	ND	NC	NC	NC
Chrysene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)anthracene	µg	ND	ND	ND	NC	NC	NC
bis(2-Ethylhexyl)phthalate	µg	ND	ND	ND	NC	NC	NC
Di-n-Octylphthalate	µg	ND	ND	ND	NC	NC	NC
Benzo(b)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(k)fluoranthene	µg	ND	ND	ND	NC	NC	NC
Benzo(a)pyrene	µg	ND	ND	ND	NC	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	ND	ND	NC	NC	NC
Dibenz(a,h)anthracene	µg	ND	ND	ND	NC	NC	NC
Benzo(g,h,i)perylene	µg	ND	ND	ND	NC	NC	NC
Total	µg	**103.50**	**ND**	**3.80**	**NC[1]**	**96.33%**	**NC**

Notes:
_/ - Laboratory data qualifier
/_ - Data validation qualifier
µg - Microgram
NC - Not calculated
ND - Non-detect

Qualifiers:
J - Result is estimated
JB - Analyte is detected in the method blank resulting in potential bias high. Reported concentration is estimated

Destruction efficiency is not calculated where influent and/or effluent values are estimated

1 The low destruction efficiency was not calculated because no SVOC compounds were detected in IN2

Table 4.1
Water Levels Inside Barrier Wall - Second Quarter 2002
American Chemical Service NPL Site
Griffith, Indiana

Date	On-Site Area						
	P-29	P-31	P-32	P-36	P-49	P-106	P-108
5-Apr-02	633.7	635.4	634.4	635.0	632.3	633.0	634.3
12-Apr-02	633.7	635.5	634.5	635.0	632.6	633.1	634.4
19-Apr-02	633.8	635.5	634.4	635.0	632.6	632.8	634.1
26-Apr-02	633.7	636.0	634.4	633.2	634.1	634.9	636.3
3-May-02	633.6	636.4	634.3	631.3	635.5	636.9	638.4
10-May-02	633.9	636.7	634.5	631.5	636.1	637.2	638.8
17-May-02	634.7	637.7	635.2	632.6	637.3	637.9	639.4
24-May-02	634.4	637.0	634.8	632.2	636.5	637.6	639.2
31-May-02	634.4	636.8	634.5	632.2	636.6	637.9	638.5
7-Jun-02	634.1	636.5	634.3	631.8	636.1	637.5	638.2
14-Jun-02	633.3	635.9	634.0	631.3	635.5	636.9	637.9
21-Jun-02	632.6	635.3	633.7	630.9	634.8	636.4	637.7
28-Jun-02	633.2	635.0	633.8	630.7	634.8	636.1	638.0

Date	Off-Site Area						
	P-96	P-110	P-112	P-113	P-114	P-116	P-118
5-Apr-02	620.9	628.8	625.7	628.5	629.5	628.9	627.6
12-Apr-02	622.6	629.0	626.9	628.4	629.3	628.8	627.4
19-Apr-02	620.9	628.5	625.7	628.2	629.1	628.6	627.5
26-Apr-02	620.9	628.3	626.1	628.2	629.0	628.5	627.3
3-May-02	620.9	628.2	626.4	628.0	628.9	628.4	627.0
10-May-02	620.9	628.3	627.0	628.0	628.9	628.5	627.0
17-May-02	620.9	628.7	627.3	627.9	628.9	628.4	626.3
24-May-02	620.9	628.4	624.4	627.8	628.9	627.9	627.0
31-May-02	620.9	628.5	624.8	628.7	628.9	628.3	626.9
7-Jun-02	620.9	628.1	624.2	627.1	627.5	627.9	626.7
14-Jun-02	620.9	627.9	624.1	627.3	628.0	627.8	626.6
21-Jun-02	620.9	627.8	624.1	627.4	628.5	627.7	626.5
28-Jun-02	620.9	627.7	624.0	627.3	628.4	627.8	626.6

Notes:
All water level elevations are in feet AMSL

SEDIMENT SAMPLE LOCATION

GWTP OUTFALLS

PGCS

BARRIER WALL

GWTP EFFLUENT SYSTEM

GROUNDWATER TREATMENT PLANT

N

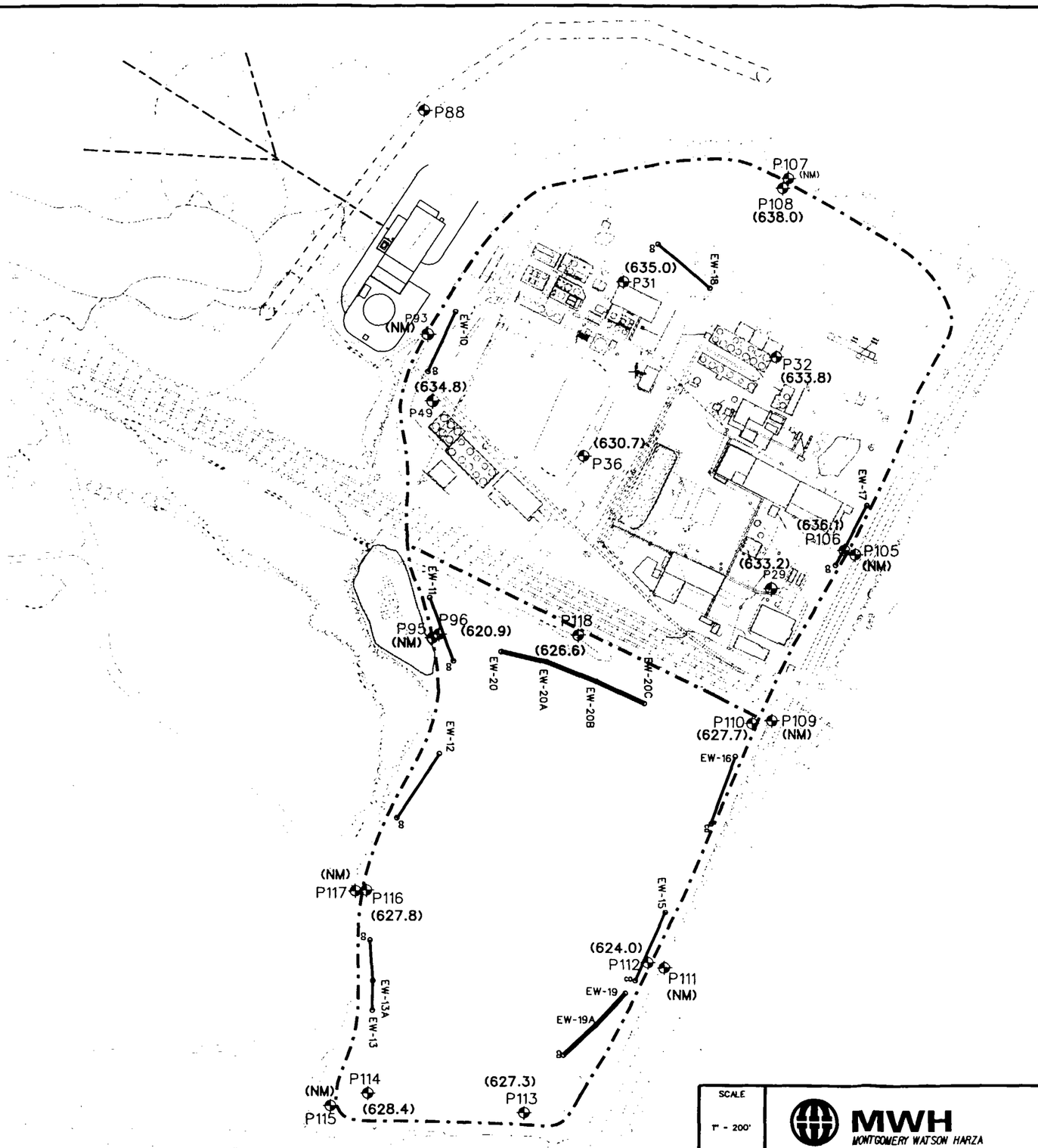
0 150

SCALE IN FEET

SCALE			FIGURE
1" = 150'	MWH MONTGOMERY WATSON HARZA	AMERICAN CHEMICAL SERVICE, INC. GRIFFITH, INDIANA	2.1

ANNUAL SEDIMENT SAMPLE COLLECTION LOCATION

JOB No. MW Job No. FILE: J:\209\0601 ACS\0118 GWTP\Drawings\ANNUAL_SEDIMENT_SAMPL.fig Date: 14-JAN-2003 10:05



N

0 200

SCALE IN FEET

LEGEND

- P106 — PIEZOMETER LOCATION AND DESIGNATION
- ORCPZ7 — ORC PIEZOMETER LOCATION AND DESIGNATION
- MONITORING WELL LOCATION AND DESIGNATION
- STAFF GAUGE LOCATION AND DESIGNATION
- (DRY) — WELL/STAFF GAUGE WAS DRY DURING MEASURING
- (NM) — NOT MEASURED
- (638.00) — GROUNDWATER ELEVATION
- BARRIER WALL
- EW-11 — BWES EXTRACTION TRENCH LOCATION AND DESIGNATION
- PERIMETER GROUND WATER CONTAINMENT SYSTEM EXTRACTION TRENCH

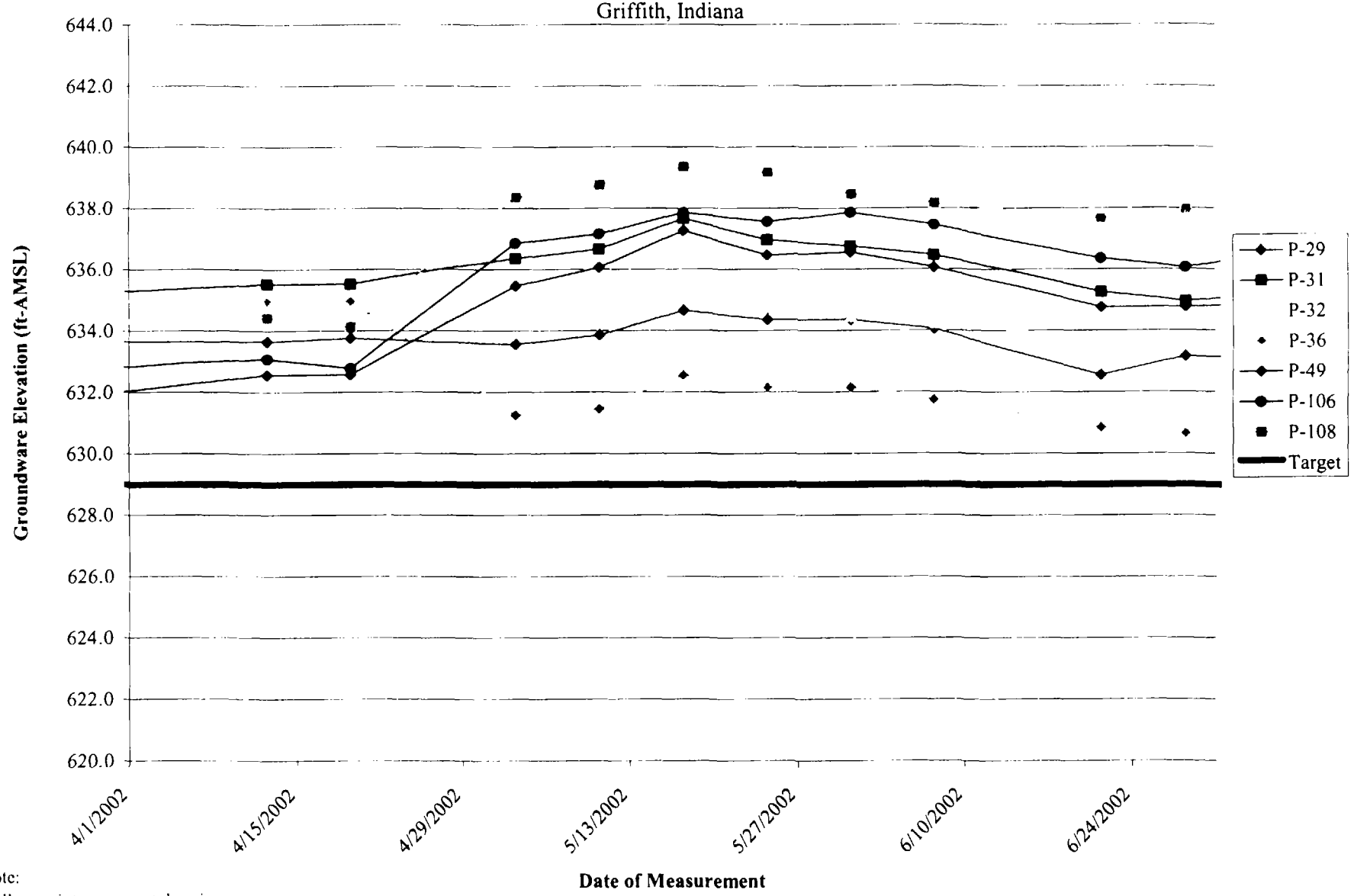
NOTE

1. GROUNDWATER ELEVATIONS WERE MEASURED AT THE SITE ON JUNE 28, 2002

SCALE			FIGURE
1" = 200'	MWH MONTGOMERY WATSON HARZA	AMERICAN CHEMICAL SERVICE, INC. GRIFFITH, INDIANA	WATER TABLE ELEVATIONS INSIDE THE BARRIER WALL JUNE 2002	4.1

JOB No. MW Job No. FILE: J:\209\0603 ACS\0301 GWTP\Drawings\Water Table June 02.dgn Plot Date: 14-JAN-2003 10:34

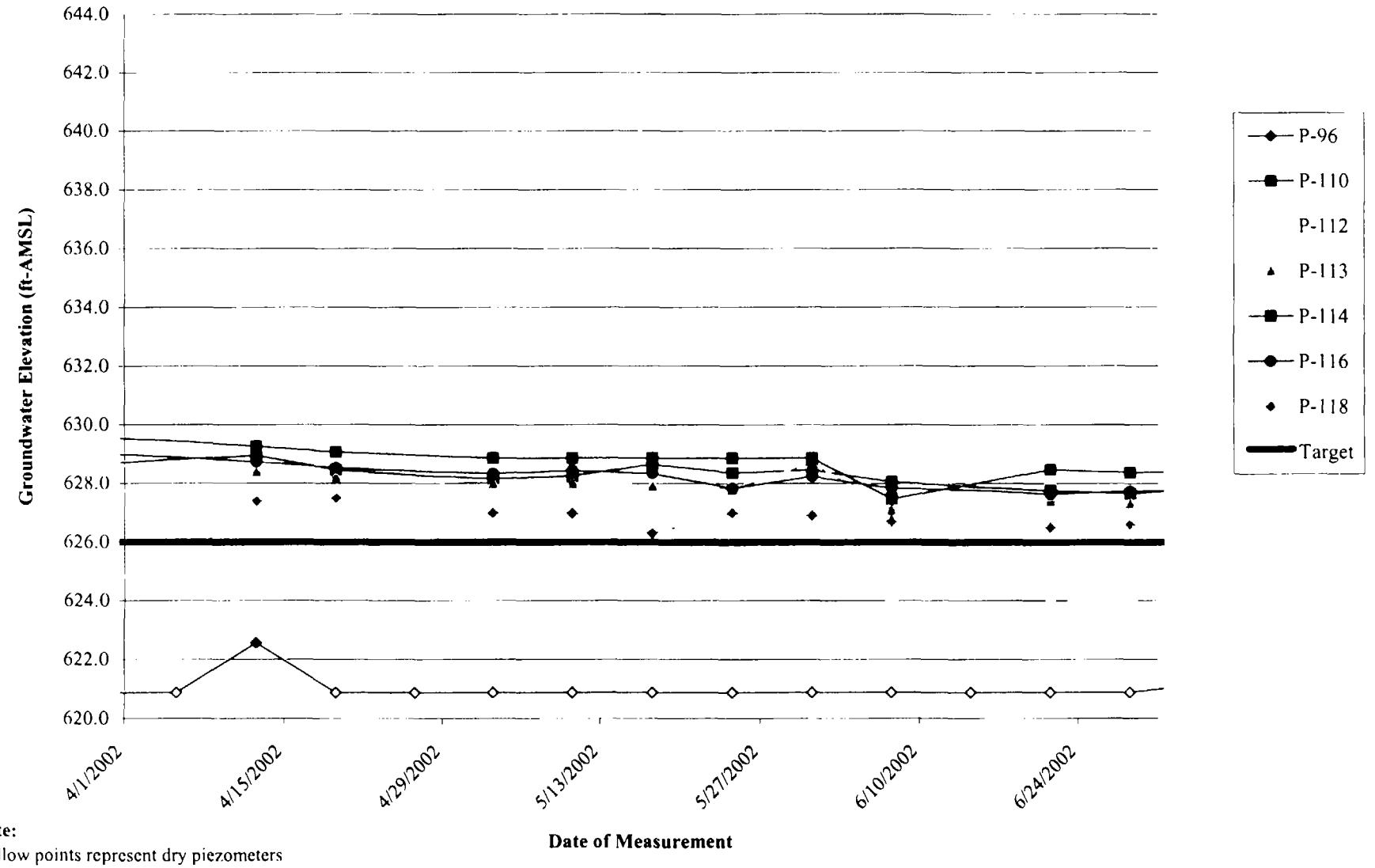
Figure 4.2
Water Level Trends Inside Barrier Wall (On-Site Area)
ACS NPL Site
Griffith, Indiana



Note:
Hollow points represent dry piezometers
(data used for graphing purposes only).

TMK/RHS
J:/209/0603/0301/6030301a019.xls/On-Site Chart for Report

Figure 4.3
Water Level Trends Inside Barrier Wall (Off-Site Area)
ACS NPL Site
Griffith, Indiana



Note:
Hollow points represent dry piezometers
(data used for graphing purposes only).

TMK/RHS
J:/209/0603/0301/6030301a019.xls/Off-Site Chart for Report

APPENDIX A

EFFLUENT ANALYTICAL DATA

April 22, 2002 Compliance Sample
Laboratory Results

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract:

Lab Code: LIBRTY Case No.: NRAS No.:

SDG No.: RC1024

Matrix (soil/water): WATER Lab Sample ID: RC1024-1

Date Received: 4/23/02 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): mg/L

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
TSS	1.00	U			4/23/02
pH	7.96				4/23/02

Comments:

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

8445B

FINAL REPORT OF ANALYSES

COMPUCHEM
Attn: DIANE BYRD
501 MADISON AVENUE
CARY, NC 27513-

REPORT DATE: 05/14/02

ACS-89

SAMPLE NUMBER- 196307 SAMPLE ID- EFFLUENT SAMPLE MATRIX- WW
DATE SAMPLED- 04/22/02 TIME SAMPLED- 1400
DATE RECEIVED- 04/23/02 SAMPLER- NOT SPECIFIED RECEIVED BY- RCB
TIME RECEIVED- 1500 DELIVERED BY- CHRIS BRAND

Page 1 of 1 PROJECT NAME : ACS-89

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
BIOCHEMICAL OXYGEN DEMAND	EPA 405.1	04/24/02	LEB	<2	mg/L	2

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR C.T.L.

15 day

P.O. Box 12298 • Research Triangle Park, NC 27709
Telephone (919) 467-3090

Shipping: 102-A Woodwinds Industrial Court • Cary, NC 27511

SW-846 METALS

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix (soil/water): WATER Lab Sample ID: RC1024-1

Level (low/med): LOW Date Received: 04/23/02

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	88.5	B		P	UB
7440-36-0	Antimony	4.1	B		P	UB
7440-38-2	Arsenic	2.0	U		P	
7440-39-3	Barium	70.1			P	
7440-41-7	Beryllium	0.20	U		P	
7440-43-9	Cadmium	0.40	U		P	
7440-70-2	Calcium	68700			P	
7440-47-3	Chromium	0.50	U		P	
7440-48-4	Cobalt	1.2	B		P	
7440-50-8	Copper	1.0	U		P	
7439-89-6	Iron	9.5	U		P	
7439-92-1	Lead	2.3	B		P	UB
7439-95-4	Magnesium	29500			P	
7439-96-5	Manganese	14.4			P	
7439-97-6	Mercury	0.10	U		CV	
7440-02-0	Nickel	5.1			P	
7440-09-7	Potassium	12500			P	
7782-49-2	Selenium	2.1	U		P	
7440-22-4	Silver	0.50	U		P	
7440-23-5	Sodium	87700			P	
7440-28-0	Thallium	2.2	U		P	
7440-62-2	Vanadium	3.8	B		P	
7440-66-6	Zinc	7.1	B		P	UB

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

8

8455A

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

ab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix: (soil/water) WATER Lab Sample ID: RC1024-1

ample wt/vol: 25 (g/ml) ML Lab File ID: RC1024-1B73

evel: (low/med) LOW Date Received: 04/23/02

% Moisture: not dec. _____ Date Analyzed: 04/25/02

C Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.1	J
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	1	JB 3 3UB
75-09-2	Methylene Chloride	0.1	J
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U
108-88-3	Toluene	0.06	J
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.05	JB 0.5 UB
591-78-6	2-hexanone	3	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

ab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix: (soil/water) WATER Lab Sample ID: RC1024-1

ample wt/vol: 25 (g/ml) ML Lab File ID: RC1024-1B73

Level: (low/med) LOW Date Received: 04/23/02

Moisture: not dec. _____ Date Analyzed: 04/25/02

GC Column: ZB-624 ID: 0.32 (mm) Dilution Factor: 1.0

oil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U UJ
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix: (soil/water) WATER Lab Sample ID: RC1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RC1024-1RA64

Level: (low/med) LOW Date Received: 04/23/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/29/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 04/29/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	Bis(2-chloroethyl)ether	9.6	U
106-44-5	4-Methylphenol	10	U
78-59-1	Isophorone	10	U
117-81-7	bis(2-ethylhexyl)Phthalate	0.91	JB 6 UB

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: SIM

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix: (soil/water) WATER Lab Sample ID: RC1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RC1024-1A64

Level: (low/med) LOW Date Received: 04/23/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:04/29/01

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/02/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
87-86-5	Pentachlorophenol	1	U

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: 8082

ab Code: LIBRTY Case No.: SAS No.: SDG No.: RC1024

Matrix: (soil/water) WATER Lab Sample ID: RC1024-1

ample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 04/23/02

xtraction: (SepF/Cont/Sonc) SEPF Date Extracted:04/25/02

Concentrated Extract Volume: 5000(uL) Date Analyzed: 04/26/02

njection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

May 9, 2002 Compliance Sample
Laboratory Results

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract:

Lab Code: LIBRTY Case No.: NRAS No.:

SDG No.: RE1024

Matrix (soil/water): WATER Lab Sample ID: RE1024-1

Date Received: 5/17/02 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): mg/L

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
TSS	1.00	U			5/21/02
pH	7.83				5/17/02

16/402

Comments:

9569B

FINAL REPORT OF ANALYSES

COMPUCHEM
Attn: DIANE BYRD
501 MADISON AVENUE
CARY, NC 27513-

REPORT DATE: 05/29/02

SAMPLE NUMBER- 197124 SAMPLE ID- EFFLUENT SAMPLE MATRIX- WW
DATE SAMPLED- 05/16/02 TIME SAMPLED- 1430
DATE RECEIVED- 05/17/02 SAMPLER- NOT SPECIFIED RECEIVED BY- ALT
TIME RECEIVED- 1350 DELIVERED BY- JAMES FELDHAUS

Page 1 of 1 PROJECT NAME : ACS 89

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
BIOCHEMICAL OXYGEN DEMAND	EPA 405.1	05/17/02	LEB	<2	mg/L	2

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR A.L.M.

M61402

SW846 METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: _____

Lab Code: LIBRTY Case No.: _____ SAS No.: _____ SDG No.: RE1024

Matrix (soil/water): WATER Lab Sample ID: RE1024-1

Level (low/med): LOW Date Received: 5/17/02

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	120			P	UB
7440-38-2	Arsenic	4.2	U		P	
7440-39-3	Barium	75.5			P	
7440-36-0	Antimony	3.8	B		P	UB
7440-41-7	Beryllium	0.21	B		P	UB
7440-43-9	Cadmium	0.30	U		P	
7440-70-2	Calcium	64000			P	
7440-47-3	Chromium	1.3	B		P	UB
7440-48-4	Cobalt	0.98	B		P	
7440-50-8	Copper	2.1	B		P	
7439-89-6	Iron	11.4	U		P	
7439-92-1	Lead	1.3	U		P	
7439-95-4	Magnesium	28200			P	
7439-96-5	Manganese	8.9	B		P	
7439-97-6	Mercury	0.64	U		CV	
7440-02-0	Nickel	9.9			P	
7440-09-7	Potassium	13000			P	
7782-49-2	Selenium	2.2	U		P	
7440-22-4	Silver	0.70	U		P	
7440-23-5	Sodium	165000			P	
7440-28-0	Thallium	3.3	U		P	
7440-62-2	Vanadium	2.4	B		P	UB
7440-66-6	Zinc	1.4	U		P	

6/14/02

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

8569A

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RE1024

Matrix: (soil/water) WATER Lab Sample ID: RE1024-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: RE1024-1B71

Level: (low/med) LOW Date Received: 05/17/02

% Moisture: not dec. _____ Date Analyzed: 05/29/02

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-15-0	Carbon disulfide	0.5	U
67-64-1	Acetone	3	U UJ
75-09-2	Methylene Chloride	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-butanone	3	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
71-43-2	Benzene	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-10-1	4-Methyl-2-pentanone	3	U UJ
108-88-3	Toluene	0.2	JB 0.5 UB
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
127-18-4	Tetrachloroethene	0.5	U
591-78-6	2-hexanone	3	U UJ
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.04	J
100-41-4	Ethylbenzene	0.5	U
108-38-3	m,p-Xylene	1	U
95-47-6	o-Xylene	0.5	U
100-42-5	Styrene	0.5	U

6/14/02

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RE1024

Matrix: (soil/water) WATER Lab Sample ID: RE1024-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: RE1024-1B71

Level: (low/med) LOW Date Received: 05/17/02

% Moisture: not dec. _____ Date Analyzed: 05/29/02

GC Column: SPB-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

6/14/02

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method:

ab Code: LIBRTY Case No.: SAS No.: SDG No.: RE1024

Matrix: (soil/water) WATER Lab Sample ID: RE1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RE1024-1A66

Level: (low/med) LOW Date Received: 05/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/20/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/21/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	Bis(2-chloroethyl)ether	9.6	U
106-44-5	4-Methylphenol	10	U
78-59-1	Isophorone	10	UUJ
117-81-7	bis(2-ethylhexyl)Phthalate	6	U

A6/4/02

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RE1024

Matrix: (soil/water) WATER Lab Sample ID: RE1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RE1024-1A70

Level: (low/med) LOW Date Received: 05/17/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/20/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/23/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
87-86-5	Pentachlorophenol	1	U

~6140~

FORM I SV

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RE1024

Matrix: (soil/water) WATER Lab Sample ID: RE1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 05/17/02

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:05/17/02

Concentrated Extract Volume: 5000(uL) Date Analyzed: 05/17/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

6/14/02

June 20, 2002 Compliance Sample
Laboratory Results

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____

SDG No.: RG1024

Matrix (soil/water): WATER Lab Sample ID: RG1024-1

Date Received: 6/21/02 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): mg/L

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
TSS	1.20				6/25/02
pH	7.13				6/28/02 J

7/30/02

Comments: _____

2

FINAL REPORT OF ANALYSES

COMPUCHEM
Attn: DIANE BYRD
501 MADISON AVENUE
CARY, NC 27513-

REPORT DATE: 06/28/02

SAMPLE NUMBER- 198141 SAMPLE ID- EFFLUENT SAMPLE MATRIX- WW
DATE SAMPLED- 06/20/02 TIME SAMPLED- 1400
DATE RECEIVED- 06/21/02 SAMPLER- NOT SPECIFIED RECEIVED BY- ALT
TIME RECEIVED- 1418 DELIVERED BY- CHRIS BRAND

Page 1 of 1 PROJECT NAME : ACS-89

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
BIOCHEMICAL OXYGEN DEMAND	EPA 405.1	06/21/02	RCB	24	mg/L	2

QL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR A.L.K.

7/30/02

SW846 METALS
-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract:

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix (soil/water): WATER Lab Sample ID: RG1024-1

Level (low/med): LOW Date Received: 6/21/02

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	122			P	UB
7440-38-2	Arsenic	4.2	U		P	
7440-39-3	Barium	93.6			P	
7440-36-0	Antimony	1.6	U		P	
7440-41-7	Beryllium	0.20	U		P	
7440-43-9	Cadmium	0.30	U		P	
7440-70-2	Calcium	78400			P	
7440-47-3	Chromium	0.50	U		P	
7440-48-4	Cobalt	1.4	B		P	UB
7440-50-8	Copper	4.1	B		P	UB
7439-89-6	Iron	11.4	U		P	
7439-92-1	Lead	1.3	U		P	
7439-95-4	Magnesium	30600			P	
7439-96-5	Manganese	24.5			P	
7439-97-6	Mercury	0.64	U		CV	
7440-02-0	Nickel	31.8			P	
7440-09-7	Potassium	16600			P	
7782-49-2	Selenium	2.2	U		P	
7440-22-4	Silver	0.70	U		P	
7440-23-5	Sodium	360000			P	
7440-28-0	Thallium	3.3	U		P	
7440-62-2	Vanadium	2.0	B		P	UB
7440-66-6	Zinc	3.9	B		P	

6/1/20/02

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

8

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix: (soil/water) WATER Lab Sample ID: RG1024-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: RG1024-1A61

Level: (low/med) LOW Date Received: 06/21/02

% Moisture: not dec. _____ Date Analyzed: 06/29/02

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	0.2	J	J
75-01-4	Vinyl Chloride	0.5	U	
74-83-9	Bromomethane	0.5	U	
75-00-3	Chloroethane	0.5	U	
75-35-4	1,1-Dichloroethene	0.5	U	
75-15-0	Carbon disulfide	0.5	U	
67-64-1	Acetone	4	B	UBJ
75-09-2	Methylene Chloride	1	B	UBJ
156-60-5	trans-1,2-Dichloroethene	0.5	U	
75-34-3	1,1-Dichloroethane	0.5	U	
156-59-2	cis-1,2-Dichloroethene	0.5	U	
78-93-3	2-butanone	3	U	UJ
67-66-3	Chloroform	0.5	U	
71-55-6	1,1,1-Trichloroethane	0.5	U	
56-23-5	Carbon Tetrachloride	0.5	U	
71-43-2	Benzene	0.5	U	
107-06-2	1,2-Dichloroethane	0.5	U	
79-01-6	Trichloroethene	0.5	U	
78-87-5	1,2-Dichloropropane	0.5	U	
75-27-4	Bromodichloromethane	0.5	U	
10061-01-5	cis-1,3-Dichloropropene	0.5	U	
108-10-1	4-Methyl-2-pentanone	3	U	
108-88-3	Toluene	0.2	JB	UBJ
10061-02-6	trans-1,3-Dichloropropene	0.5	U	
79-00-5	1,1,2-Trichloroethane	0.06	J	J
127-18-4	Tetrachloroethene	0.5	U	
591-78-6	2-hexanone	6		J
124-48-1	Dibromochloromethane	0.5	U	
108-90-7	Chlorobenzene	0.09	JB	UBJ
100-41-4	Ethylbenzene	0.5	U	
108-38-3	m,p-Xylene	1	U	
95-47-6	o-Xylene	0.5	U	
100-42-5	Styrene	0.5	U	

FORM I VOA

7/30/02

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8260B

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix: (soil/water) WATER Lab Sample ID: RG1024-1

Sample wt/vol: 25 (g/ml) ML Lab File ID: RG1024-1A61

Level: (low/med) LOW Date Received: 06/21/02

% Moisture: not dec. _____ Date Analyzed: 06/29/02

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1	1,3-Dichlorobenzene	0.5	U
106-46-7	1,4-Dichlorobenzene	0.5	U
95-50-1	1,2-Dichlorobenzene	0.5	U
120-82-1	1,2,4-Trichlorobenzene	0.5	U
540-59-0	1,2-Dichloroethene (total)	0.5	U
1330-20-7	Xylene (total)	0.5	U

1/30/05

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix: (soil/water) WATER Lab Sample ID: RG1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RG1024-1B64

Level: (low/med) LOW Date Received: 06/21/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:06/24/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/25/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
111-44-4	Bis(2-chloroethyl)ether	9.6	U	
106-44-5	4-Methylphenol	10	U	
78-59-1	Isophorone	10	U	
117-81-7	bis(2-ethylhexyl)Phthalate	4	JB	UB

7/30/02

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Method: 8270C

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix: (soil/water) WATER Lab Sample ID: RG1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: RG1024-1A64

Level: (low/med) LOW Date Received: 06/21/02

% Moisture: _____ decanted: (Y/N)___ Date Extracted:06/25/02

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/26/02

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
87-86-5	Pentachlorophenol	1	U

1/30/02

FORM I SV

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: RG1024

Matrix: (soil/water) WATER Lab Sample ID: RG1024-1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N)___ Date Received: 06/21/02

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:06/26/02

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/27/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
12674-11-2	Aroclor-1016	0.50	U	
11104-28-2	Aroclor-1221	1.0	U	
11141-16-5	Aroclor-1232	0.50	U	
53469-21-9	Aroclor-1242	0.50	U	uJ
12672-29-6	Aroclor-1248	0.50	U	↓
11097-69-1	Aroclor-1254	0.50	U	
11096-82-5	Aroclor-1260	0.50	U	

7/30/02

APPENDIX B

HISTORICAL WETLAND SEDIMENT ANALYTICAL DATA (May 1996)

TABLE 8
PCB ORGANICS ANALYSIS SUMMARY
Soil/Sediment Samples
WETLAND INVESTIGATION
AMERICAN CHEMICAL SERVICES, INC.
GRIFFITH, INDIANA

SAMPLE ID	Detected PCBs			Total PCBs
	aroclor-1248	aroclor-1254	aroclor-1260	
SD17	58 JP	150 P	140	348
SD18	- -	- -	- -	- -
SD18-91	- -	- -	- -	- -
SD19	13 JP	36 JP	16 JP	65
SD20	- -	79 J	180 P	259
SD21	1,300 JP	8,700	3,100 P	13,100
SD22	560 JP	3,600	1,700	5,860
SD22-91	270 JP	1,800	830	2,900
SD23	770 JP	4,000	1,900	6,670
SD24	- -	- -	- -	- -
SD25	- -	46 J	- -	46
SD26	320 JP	1,700	1,900	3,920
SD27	48 J	190 P	270 P	508
SD28	220 J	1,200	970 P	2,390
SD29	180	380 P	330 P	890
SD29-91	84 P	450 P	570 P	1,104
SD30	74 P	570 P	390	1,034
SD31	61 JP	600	240 P	901
SD32	35 JP	79 P	73	187
SD33	27,000 P	63,000 P	35,000 P	125,000
SD34	- -	14 JP	13 JP	27
SD35	2,700 JP	8,100 P	6,200 P	17,000
SD36	- -	37 JP	- -	37
SD37	- -	- -	- -	- -
SD38	30 JP	99 JP	100 P	229

Notes:

1. All results expressed in micrograms per kilogram (ug/kg).
2. "--" = *compound was not detected above the quantitation limit*
3. "J" = indicates an estimated concentration between the quantitation limit and the method detection limit
4. "P" = This flag is used for pesticide/arochlor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns.

CCH/cch/SCI

j:\4077\0090\wetland\lab-data.xlw

PEST - soil

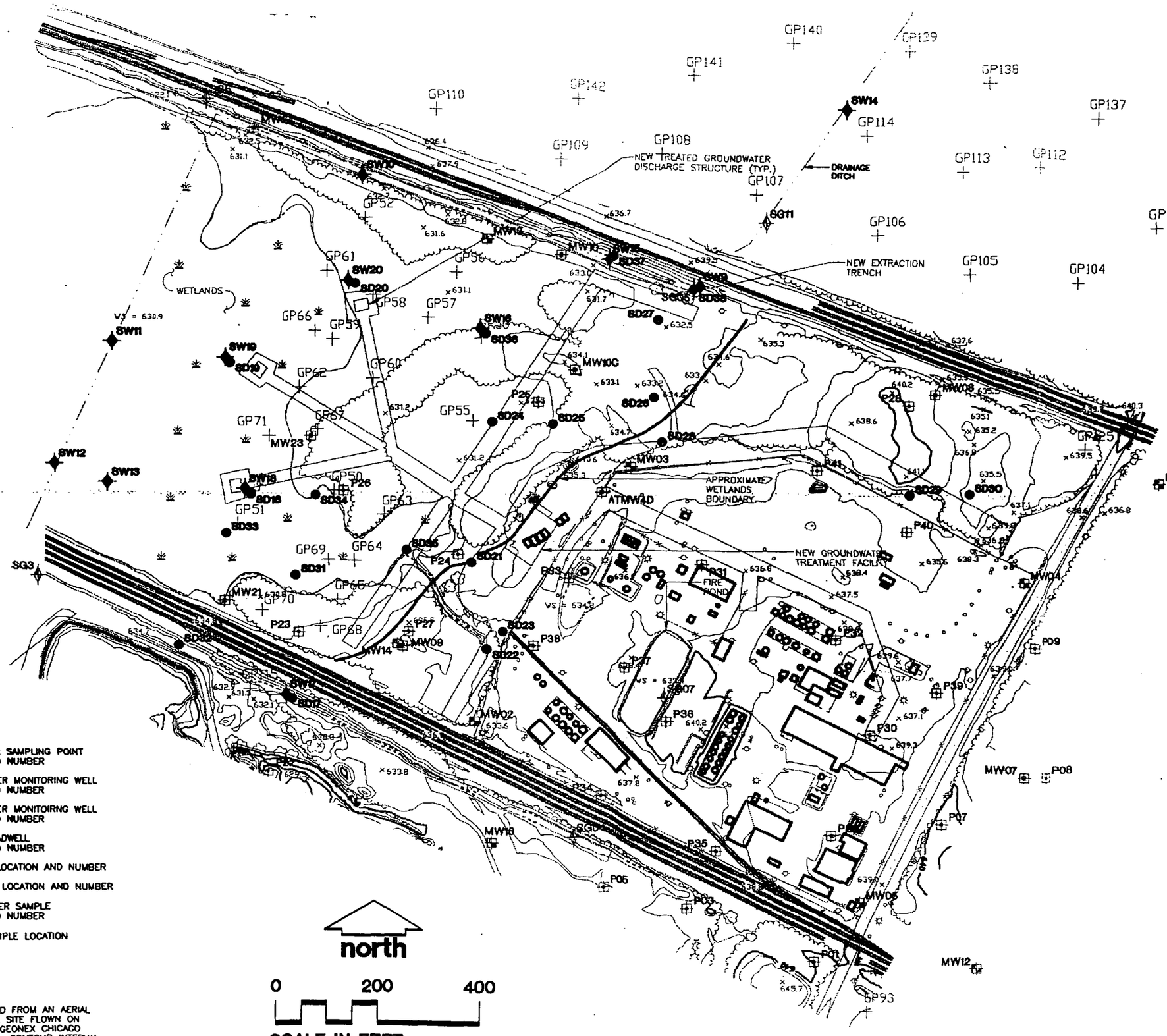


FIGURE 1

Developed By CCH Drawn By CCM
Approved By CCH/PJV Date 7/26/96
Reference
Revisions

SAMPLING POINTS
WETLAND INVESTIGATION
AMERICAN CHEMICAL SERVICE, INC.
NPL SITE
GRIFFITH, INDIANA

Drawing Number
4077.007B2

MONTGOMERY WATSON

Management Review
Other
Technical Review
Project Manager
Group Leader
Lead Professional
QUALITY CONTROL

APPENDIX C

SEDIMENT ANALYTICAL DATA

June 5, 2002 Sediment Sample
Laboratory Results

8780B

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWTP-003

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: G2231

Matrix: (soil/water) SOIL Lab Sample ID: G2231-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 37 decanted: (Y/N) Y Date Received: 06/06/02

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/06/02

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 06/10/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	52	U UJ
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	52	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	41	J J

7/30/05

1D

GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GWTP-004

Lab Name: COMPUCHEM Contract: 8082

Lab Code: LIBRTY Case No.: SAS No.: SDG No.: G2231

Matrix: (soil/water) SOIL Lab Sample ID: G2231-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 34 decanted: (Y/N) Y Date Received: 06/06/02

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/06/02

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/10/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	49	U
11104-28-2	Aroclor-1221	64	U
11141-16-5	Aroclor-1232	49	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	49	U

7/30/02

APPENDIX D

CATALYTIC OXIDIZER OFF-GAS ANALYTICAL DATA

April 26, 2002 Off-Gas Sample (Round 1)
Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-001A

ID#: 0204587A-01A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	6.7	14	240	500
Vinyl Chloride	6.7	17	350	900
Bromomethane	6.7	26	Not Detected	Not Detected
Chloroethane	6.7	18	170	460
1,1-Dichloroethene	6.7	27	24	95
Methylene Chloride	6.7	24	440	1500
1,1-Dichloroethane	6.7	28	74	310
cis-1,2-Dichloroethene	6.7	27	880	3600
Chloroform	6.7	33	Not Detected	Not Detected
1,1,1-Trichloroethane	6.7	37	13	72
Carbon Tetrachloride	6.7	43	Not Detected	Not Detected
Benzene	6.7	22	1500	4800
1,2-Dichloroethane	6.7	28	32	130
Trichloroethene	6.7	36	7.1	39
1,2-Dichloropropane	6.7	31	7.4	35
cis-1,3-Dichloropropene	6.7	31	Not Detected	Not Detected
Toluene	6.7	26	750	2800
trans-1,3-Dichloropropene	6.7	31	Not Detected	Not Detected
1,1,2-Trichloroethane	6.7	37	2.0 J J	11 J
Tetrachloroethene	6.7	46	5.3 J J	37 J
Chlorobenzene	6.7	31	110	540
Ethyl Benzene	6.7	30	100	460
m,p-Xylene	6.7	30	480	2100
o-Xylene	6.7	30	160	730
Styrene	6.7	29	19	84
1,1,2,2-Tetrachloroethane	6.7	47	Not Detected	Not Detected
Acetone	27	65	88	210
Carbon Disulfide	27	85	Not Detected	Not Detected
trans-1,2-Dichloroethene	27	110	54	220
2-Butanone (Methyl Ethyl Ketone)	27	80	27	80
Bromodichloromethane	27	180	Not Detected	Not Detected
4-Methyl-2-pentanone	27	110	21 J J	86 J
2-Hexanone	27	110	Not Detected	Not Detected
Dibromochloromethane	27	230	Not Detected	Not Detected
Bromoform	27	280	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

LH 5/29/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-001A

ID#: 0204587A-01A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

LH 5/29/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-001A

ID#: 0204587A-02A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	64	130	Not Detected	Not Detected
Vinyl Chloride	64	160	2900	7500
Bromomethane	64	250	Not Detected	Not Detected
Chloroethane	64	170	2200	5900
1,1-Dichloroethene	64	260	24 J J	96 J
Methylene Chloride	64	220	3100	11000
1,1-Dichloroethane	64	260	1000	4300
cis-1,2-Dichloroethene	64	260	10000	41000
Chloroform	64	320	Not Detected	Not Detected
1,1,1-Trichloroethane	64	350	270	1500
Carbon Tetrachloride	64	410	Not Detected	Not Detected
Benzene	64	210	14000	45000
1,2-Dichloroethane	64	260	310	1300
Trichloroethene	64	350	65	360
1,2-Dichloropropane	64	300	110	510
cis-1,3-Dichloropropene	64	290	Not Detected	Not Detected
Toluene	64	240	10000	38000
trans-1,3-Dichloropropene	64	290	Not Detected	Not Detected
1,1,2-Trichloroethane	64	350	20 J J	110 J
Tetrachloroethene	64	440	23 J J	160 J
Chlorobenzene	64	300	920	4300
Ethyl Benzene	64	280	1600	7200
m,p-Xylene	64	280	7700	34000
o-Xylene	64	280	2500	11000
Styrene	64	270	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	64	440	Not Detected	Not Detected
Acetone	250	610	610	1500
Carbon Disulfide	250	800	Not Detected	Not Detected
trans-1,2-Dichloroethene	250	1000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	250	760	340	1000
Bromodichloromethane	250	1700	Not Detected	Not Detected
4-Methyl-2-pentanone	250	1000	410	1700
2-Hexanone	250	1000	Not Detected	Not Detected
Dibromochloromethane	250	2200	Not Detected	Not Detected
Bromoform	250	2700	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

LH 5/29/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-001A

ID#: 0204587A-02A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

UH. 5/29/06

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-001A

ID#: 0204587A-03A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	340	710	Not Detected	Not Detected
Vinyl Chloride	340	880	7300	19000
Bromomethane	340	1300	Not Detected	Not Detected
Chloroethane	340	910	6600	18000
1,1-Dichloroethene	340	1400	410	1600
Methylene Chloride	340	1200	88000	310000
1,1-Dichloroethane	340	1400	20000	84000
cis-1,2-Dichloroethene	340	1400	9700	39000
Chloroform	340	1700	2000	10000
1,1,1-Trichloroethane	340	1900	53000	300000
Carbon Tetrachloride	340	2200	Not Detected	Not Detected
Benzene	340	1100	33000	110000
1,2-Dichloroethane	340	1400	1000	4300
Trichloroethene	340	1800	18000	100000
1,2-Dichloropropane	340	1600	270 J	1300 J
cis-1,3-Dichloropropene	340	1600	Not Detected	Not Detected
Toluene	340	1300	100000	400000
trans-1,3-Dichloropropene	340	1600	Not Detected	Not Detected
1,1,2-Trichloroethane	340	1900	Not Detected	Not Detected
Tetrachloroethene	340	2300	6800	47000
Chlorobenzene	340	1600	Not Detected	Not Detected
Ethyl Benzene	340	1500	7100	31000
m,p-Xylene	340	1500	26000	120000
o-Xylene	340	1500	7300	32000
Styrene	340	1500	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	340	2400	Not Detected	Not Detected
Acetone	1400	3300	16000	40000
Carbon Disulfide	1400	4300	Not Detected	Not Detected
trans-1,2-Dichloroethene	1400	5500	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1400	4100	15000	46000
Bromodichloromethane	1400	9300	Not Detected	Not Detected
4-Methyl-2-pentanone	1400	5700	3800	16000
2-Hexanone	1400	5700	Not Detected	Not Detected
Dibromochloromethane	1400	12000	Not Detected	Not Detected
Bromoform	1400	14000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

UH 5/29/12

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-001A

ID#: 0204587A-03A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

LH chgl

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-001A

ID#: 0204587B-01A

EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	1.0
1,2-Dichlorobenzene	1.0	1.6
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	0.97 J J
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 5/29/08

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-001A

ID#: 0204587B-01A

EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	1.2 J
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	85	50-150
Phenol-d5	95	50-150
Nitrobenzene-d5	87	50-150
2-Fluorobiphenyl	90	60-120
2,4,6-Tribromophenol	84	50-150
Terphenyl-d14	106	60-120

LH 5/29/

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-001A

ID#: 0204587B-02A

EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	0.88 J J
1,4-Dichlorobenzene	1.0	12
1,2-Dichlorobenzene	1.0	21
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	0.75 J J
Naphthalene	1.0	18
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	5.4
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 4291

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-001A

ID#: 0204587B-02A

EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	2.0 J J
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	66	50-150
Phenol-d5	81	50-150
Nitrobenzene-d5	83	50-150
2-Fluorobiphenyl	89	60-120
2,4,6-Tribromophenol	78	50-150
Terphenyl-d14	105	60-120

LH 4/29/

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-001A

ID#: 0204587B-03A

EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	3.9
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	6.2
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 11/9/10

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-001A

ID#: 0204587B-03A

EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	88	50-150
Phenol-d5	99	50-150
Nitrobenzene-d5	94	50-150
2-Fluorobiphenyl	96	60-120
2,4,6-Tribromophenol	86	50-150
Terphenyl-d14	113	60-120

LH 5/29/02

May 22, 2002 Off-Gas Sample (Round 2)
Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-002A

ID#: 0205485-01A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	0.70	1.4	17	36
Vinyl Chloride	0.70	1.8	57	150
Bromomethane	0.70	2.7	Not Detected	Not Detected
Chloroethane	0.70	1.9	18	49
1,1-Dichloroethene	0.70	2.8	6.1	25
Methylene Chloride	0.70	2.4	49	170
1,1-Dichloroethane	0.70	2.8	14	60
cis-1,2-Dichloroethene	0.70	2.8	180	750
Chloroform	0.70	3.4	0.54 J /J	2.7 J
1,1,1-Trichloroethane	0.70	3.8	3.1	17
Carbon Tetrachloride	0.70	4.4	Not Detected	Not Detected
Benzene	0.70	2.2	240	770
1,2-Dichloroethane	0.70	2.8	5.4	22
Trichloroethene	0.70	3.8	0.82	4.5
1,2-Dichloropropane	0.70	3.3	1.4	6.8
cis-1,3-Dichloropropene	0.70	3.2	Not Detected	Not Detected
Toluene	0.70	2.7	120	460
trans-1,3-Dichloropropene	0.70	3.2	Not Detected	Not Detected
1,1,2-Trichloroethane	0.70	3.8	0.61 J /J	3.4 J
Tetrachloroethene	0.70	4.8	0.30 J /J	2.1 J
Chlorobenzene	0.70	3.2	23	110
Ethyl Benzene	0.70	3.1	20	86
m,p-Xylene	0.70	3.1	74	320
o-Xylene	0.70	3.1	26	120
Styrene	0.70	3.0	3.8	16
1,1,2,2-Tetrachloroethane	0.70	4.8	0.33 J /J	2.3 J
Acetone	2.8	6.7	92	220
Carbon Disulfide	2.8	8.8	0.31 J /J	0.97 J
trans-1,2-Dichloroethene	2.8	11	8.5	34
2-Butanone (Methyl Ethyl Ketone)	2.8	8.3	34	100
Bromodichloromethane	2.8	19	Not Detected	Not Detected
4-Methyl-2-pentanone	2.8	12	15	63
2-Hexanone	2.8	12	0.46 J /J	1.9 J
Dibromochloromethane	2.8	24	Not Detected	Not Detected
Bromoform	2.8	29	Not Detected /UJ	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH
6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-002A

ID#: 0205485-01A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

LH
6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-002A

ID#: 0205485-02A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	13	28	Not Detected	Not Detected
Vinyl Chloride	13	35	540	1400
Bromomethane	13	53	Not Detected	Not Detected
Chloroethane	13	36	280	760
1,1-Dichloroethene	13	54	4.9 J /J	20 J
Methylene Chloride	13	47	420	1500
1,1-Dichloroethane	13	55	210	880
cis-1,2-Dichloroethene	13	54	2300	9400
Chloroform	13	66	3.8 J /J	19 J
1,1,1-Trichloroethane	13	74	54	300
Carbon Tetrachloride	13	86	Not Detected	Not Detected
Benzene	13	44	2200	7100
1,2-Dichloroethane	13	55	53	220
Trichloroethene	13	73	6.3 J /J	34 J
1,2-Dichloropropane	13	63	22	100
cis-1,3-Dichloropropene	13	62	Not Detected	Not Detected
Toluene	13	51	1700	6600
trans-1,3-Dichloropropene	13	62	Not Detected	Not Detected
1,1,2-Trichloroethane	13	74	7.2 J /J	40 J
Tetrachloroethene	13	92	Not Detected	Not Detected
Chlorobenzene	13	63	200	940
Ethyl Benzene	13	59	410	1800
m,p-Xylene	13	59	1700	7500
o-Xylene	13	59	580	2600
Styrene	13	58	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	13	94	3.5 J /J	25 J
Acetone	54	130	1100	2600
Carbon Disulfide	54	170	Not Detected	Not Detected
trans-1,2-Dichloroethene	54	220	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	54	160	630	1900
Bromodichloromethane	54	360	Not Detected	Not Detected
4-Methyl-2-pentanone	54	220	440	1800
2-Hexanone	54	220	13 J /J	53 J
Dibromochloromethane	54	460	Not Detected	Not Detected
Bromoform	54	560	Not Detected /UJ	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-002A

ID#: 0205485-02A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

LH
6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-002A

ID#: 0205485-03A

EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	9.0	19	Not Detected	Not Detected
Vinyl Chloride	9.0	24	410	1100
Bromomethane	9.0	36	Not Detected	Not Detected
Chloroethane	9.0	24	210	580
1,1-Dichloroethene	9.0	36	3.7 J /J	15 J
Methylene Chloride	9.0	32	360	1200
1,1-Dichloroethane	9.0	37	170	720
cis-1,2-Dichloroethene	9.0	36	1900	7800
Chloroform	9.0	45	3.1 J /J	16 J
1,1,1-Trichloroethane	9.0	50	40	220
Carbon Tetrachloride	9.0	58	1.9 J /J	12 J
Benzene	9.0	29	1800	5700
1,2-Dichloroethane	9.0	37	46	190
Trichloroethene	9.0	49	5.4 J /J	30 J
1,2-Dichloropropane	9.0	42	20	92
cis-1,3-Dichloropropene	9.0	42	Not Detected	Not Detected
Toluene	9.0	35	1400	5500
trans-1,3-Dichloropropene	9.0	42	Not Detected	Not Detected
1,1,2-Trichloroethane	9.0	50	6.0 J /J	33 J
Tetrachloroethene	9.0	62	Not Detected	Not Detected
Chlorobenzene	9.0	42	170	810
Ethyl Benzene	9.0	40	350	1500
m,p-Xylene	9.0	40	1400	6400
o-Xylene	9.0	40	520	2300
Styrene	9.0	39	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	9.0	63	2.7 J /J	19 J
Acetone	36	87	1100	2600
Carbon Disulfide	36	110	Not Detected	Not Detected
trans-1,2-Dichloroethene	36	140	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	36	110	630	1900
Bromodichloromethane	36	250	Not Detected	Not Detected
4-Methyl-2-pentanone	36	150	440	1800
2-Hexanone	36	150	12 J /J	52 J
Dibromochloromethane	36	310	Not Detected	Not Detected
Bromoform	36	380	Not Detected /U	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-002A

ID#: 0205485-03A

EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

LH
6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-002A

ID#: 0205477-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060616**	**Date of Collection: 5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis: 6/6/02**
		Date of Extraction: 5/23/02

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-EF1-002A

ID#: 0205477-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060616**	**Date of Collection: 5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis: 6/6/02**
		Date of Extraction: 5/23/02

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	108	50-150
Phenol-d5	99	50-150
Nitrobenzene-d5	88	50-150
2-Fluorobiphenyl	89	60-120
2,4,6-Tribromophenol	95	50-150
Terphenyl-d14	90	60-120

LH 6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-002A

ID#: 0205477-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060617**	**Date of Collection: 5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis: 6/6/02**
		Date of Extraction: 5/23/02

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	0.87 J
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	0.50 J
1,4-Dichlorobenzene	1.0	6.3
1,2-Dichlorobenzene	1.0	13
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	1.6
Naphthalene	1.0	29
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	9.4
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

6/7/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN1-002A

ID#: 0205477-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060617**	**Date of Collection:**	**5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis:**	**6/6/02**
		Date of Extraction:	**5/23/02**

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	0.85 J
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	106	50-150
Phenol-d5	104	50-150
Nitrobenzene-d5	107	50-150
2-Fluorobiphenyl	107	60-120
2,4,6-Tribromophenol	87	50-150
Terphenyl-d14	109	60-120

LH 1/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-002A

ID#: 0205477-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060618**	**Date of Collection: 5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis: 6/6/02**
		Date of Extraction: 5/23/02

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	0.70 J
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	4.4
1,2-Dichlorobenzene	1.0	9.2
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	1.2
Naphthalene	1.0	23
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	7.2
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 6/24/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME106-IN2-002A

ID#: 0205477-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	**k060618**	**Date of Collection: 5/22/02**
Dil. Factor:	**1.00**	**Date of Analysis: 6/6/02**
		Date of Extraction: 5/23/02

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	0.81 J /J
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	86	50-150
Phenol-d5	84	50-150
Nitrobenzene-d5	86	50-150
2-Fluorobiphenyl	87	60-120
2,4,6-Tribromophenol	76	50-150
Terphenyl-d14	90	60-120

LH 6/24/02

June 21, 2002 Off-Gas Sample (Round 3)
Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-003A

ID#: 0206434AR1-01A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	29	60	170	370
Vinyl Chloride	29	75	290	750
Bromomethane	29	110	Not Detected	Not Detected
Chloroethane	29	77	130	340
1,1-Dichloroethene	29	120	26 J /J	110 J
Methylene Chloride	29	100	210	750
1,1-Dichloroethane	29	120	54	220
cis-1,2-Dichloroethene	29	120	750	3000
Chloroform	29	140	Not Detected	Not Detected
1,1,1-Trichloroethane	29	160	12 J /J	66 J
Carbon Tetrachloride	29	180	Not Detected	Not Detected
Benzene	29	94	1400	4700
1,2-Dichloroethane	29	120	Not Detected	Not Detected
Trichloroethene	29	160	9.0 J /J	49 J
1,2-Dichloropropane	29	140	7.7 J /J	36 J
cis-1,3-Dichloropropene	29	130	Not Detected	Not Detected
Toluene	29	110	570	2200
trans-1,3-Dichloropropene	29	130	Not Detected	Not Detected
1,1,2-Trichloroethane	29	160	Not Detected	Not Detected
Tetrachloroethene	29	200	5.3 J /J	36 J
Chlorobenzene	29	130	89	420
Ethyl Benzene	29	130	84	370
m,p-Xylene	29	130	360	1600
o-Xylene	29	130	120	540
Styrene	29	120	22 J /J	97 J
1,1,2,2-Tetrachloroethane	29	200	Not Detected	Not Detected
Acetone	120	280	200	490
Carbon Disulfide	120	360	Not Detected	Not Detected
trans-1,2-Dichloroethene	120	460	86 J /J	350 J
2-Butanone (Methyl Ethyl Ketone)	120	340	8300	25000
Bromodichloromethane	120	780	Not Detected	Not Detected
4-Methyl-2-pentanone	120	480	22 J /J	93 J
2-Hexanone	120	480	Not Detected	Not Detected
Dibromochloromethane	120	1000	Not Detected	Not Detected
Bromoform	120	1200	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-003A

ID#: 0206434AR1-01A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-003A

ID#: 0206434AR1-02A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	67	140	Not Detected	Not Detected
Vinyl Chloride	67	170	2600	6800
Bromomethane	67	260	Not Detected	Not Detected
Chloroethane	67	180	1700	4600
1,1-Dichloroethene	67	270	28 J /J	110 J
Methylene Chloride	67	240	1700	5900
1,1-Dichloroethane	67	280	890	3600
cis-1,2-Dichloroethene	67	270	9400	38000
Chloroform	67	330	15 J /J	75 J
1,1,1-Trichloroethane	67	370	300	1700
Carbon Tetrachloride	67	430	Not Detected	Not Detected
Benzene	67	220	15000	48000
1,2-Dichloroethane	67	280	Not Detected	Not Detected
Trichloroethene	67	360	63 J /J	340 J
1,2-Dichloropropane	67	310	78	370
cis-1,3-Dichloropropene	67	310	Not Detected	Not Detected
Toluene	67	260	8500	33000
trans-1,3-Dichloropropene	67	310	Not Detected	Not Detected
1,1,2-Trichloroethane	67	370	Not Detected	Not Detected
Tetrachloroethene	67	460	19 J /J	130 J
Chlorobenzene	67	310	740	3500
Ethyl Benzene	67	300	1700	7600
m,p-Xylene	67	300	8900	39000
o-Xylene	67	300	2800	12000
Styrene	67	290	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	67	470	Not Detected	Not Detected
Acetone	270	650	1200	2800
Carbon Disulfide	270	850	Not Detected	Not Detected
trans-1,2-Dichloroethene	270	1100	60 J /J	240 J
2-Butanone (Methyl Ethyl Ketone)	270	800	610	1800
Bromodichloromethane	270	1800	Not Detected	Not Detected
4-Methyl-2-pentanone	270	1100	490	2000
2-Hexanone	270	1100	Not Detected	Not Detected
Dibromochloromethane	270	2300	Not Detected	Not Detected
Bromoform	270	2800	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH
7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-003A

ID#: 0206434AR1-02A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-003A

ID#: 0206434AR1-03A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	70	150	Not Detected	Not Detected
Vinyl Chloride	70	180	2600	6700
Bromomethane	70	280	Not Detected	Not Detected
Chloroethane	70	190	1700	4500
1,1-Dichloroethene	70	280	23 J /J	94 J
Methylene Chloride	70	250	1600	5700
1,1-Dichloroethane	70	290	860	3500
cis-1,2-Dichloroethene	70	280	9200	37000
Chloroform	70	350	Not Detected	Not Detected
1,1,1-Trichloroethane	70	390	290	1600
Carbon Tetrachloride	70	450	Not Detected	Not Detected
Benzene	70	230	15000	48000
1,2-Dichloroethane	70	290	Not Detected	Not Detected
Trichloroethene	70	380	60 J /J	330 J
1,2-Dichloropropane	70	330	78	370
cis-1,3-Dichloropropene	70	320	Not Detected	Not Detected
Toluene	70	270	8400	32000
trans-1,3-Dichloropropene	70	320	Not Detected	Not Detected
1,1,2-Trichloroethane	70	390	Not Detected	Not Detected
Tetrachloroethene	70	490	17 J /J	110 J
Chlorobenzene	70	330	750	3500
Ethyl Benzene	70	310	1700	7500
m,p-Xylene	70	310	8700	38000
o-Xylene	70	310	2700	12000
Styrene	70	300	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	70	490	Not Detected	Not Detected
Acetone	280	680	1100	2700
Carbon Disulfide	280	890	Not Detected	Not Detected
trans-1,2-Dichloroethene	280	1100	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	280	840	580	1800
Bromodichloromethane	280	1900	Not Detected	Not Detected
4-Methyl-2-pentanone	280	1200	420	1800
2-Hexanone	280	1200	Not Detected	Not Detected
Dibromochloromethane	280	2400	Not Detected	Not Detected
Bromoform	280	3000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-003A

ID#: 0206434AR1-03A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

CH
7/26/12

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-003A

ID#: 0206434BR1-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	0.75 J
1,2-Dichlorobenzene	1.0	1.2
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	0.34 J
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 7/11/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-003A

ID#: 0206434BR1-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	6.1
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	105	50-150
Phenol-d5	96	50-150
Nitrobenzene-d5	90	50-150
2-Fluorobiphenyl	91	60-120
2,4,6-Tribromophenol	106	50-150
Terphenyl-d14	94	60-120

7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-003A

ID#: 0206434BR1-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)	
Phenol	5.0	Not Detected	
bis(2-Chloroethyl) Ether	1.0	Not Detected	
2-Chlorophenol	5.0	Not Detected	
1,3-Dichlorobenzene	1.0	Not Detected	
1,4-Dichlorobenzene	1.0	3.4	
1,2-Dichlorobenzene	1.0	6.1	
2-Methylphenol (o-Cresol)	5.0	Not Detected	
N-Nitroso-di-n-propylamine	1.0	Not Detected	
4-Methylphenol	5.0	Not Detected	
Hexachloroethane	1.0	Not Detected	
Nitrobenzene	1.0	Not Detected	
Isophorone	1.0	Not Detected	
2-Nitrophenol	5.0	Not Detected	
2,4-Dimethylphenol	5.0	Not Detected	
bis(2-Chloroethoxy) Methane	1.0	Not Detected	
2,4-Dichlorophenol	5.0	Not Detected	
1,2,4-Trichlorobenzene	1.0	0.66 J	J
Naphthalene	1.0	2.8	
4-Chloroaniline	10	Not Detected	
Hexachlorobutadiene	1.0	Not Detected	
4-Chloro-3-methylphenol	5.0	Not Detected	
2-Methylnaphthalene	1.0	1.4	
Hexachlorocyclopentadiene	20	Not Detected	
2,4,6-Trichlorophenol	5.0	Not Detected	
2,4,5-Trichlorophenol	5.0	Not Detected	
2-Chloronaphthalene	1.0	Not Detected	
2-Nitroaniline	10	Not Detected	
Dimethylphthalate	5.0	Not Detected	
Acenaphthylene	1.0	Not Detected	
2,6-Dinitrotoluene	5.0	Not Detected	
3-Nitroaniline	10	Not Detected	
Acenaphthene	1.0	Not Detected	
2,4-Dinitrophenol	20	Not Detected	
4-Nitrophenol	20	Not Detected	
2,4-Dinitrotoluene	5.0	Not Detected	
Dibenzofuran	1.0	Not Detected	
Diethylphthalate	5.0	0.37 J	J
Fluorene	1.0	Not Detected	
4-Chlorophenyl-phenyl Ether	1.0	Not Detected	
4-Nitroaniline	10	Not Detected	
4,6-Dinitro-2-methylphenol	10	Not Detected	

LH 1/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-003A

ID#: 0206434BR1-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	2.0 J
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

1J

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	88	50-150
Phenol-d5	91	50-150
Nitrobenzene-d5	86	50-150
2-Fluorobiphenyl	87	60-120
2,4,6-Tribromophenol	101	50-150
Terphenyl-d14	92	60-120

LH
7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-003A

ID#: 0206434BR1-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	1.2
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	3.0
1,4-Dichlorobenzene	1.0	32
1,2-Dichlorobenzene	1.0	56
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	7.1
Naphthalene	1.0	27
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	15
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	0.43 J
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

J

LH 2/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-003A

ID#: 0206434BR1-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)	
N-Nitrosodiphenylamine	10	Not Detected	
4-Bromophenyl-phenyl Ether	1.0	Not Detected	
Hexachlorobenzene	1.0	Not Detected	
Pentachlorophenol	20	Not Detected	
Phenanthrene	1.0	Not Detected	
Anthracene	1.0	Not Detected	
di-n-Butylphthalate	5.0	1.4 J	1J
Fluoranthene	1.0	Not Detected	
Pyrene	1.0	Not Detected	
Butylbenzylphthalate	5.0	Not Detected	
3,3'-Dichlorobenzidine	20	Not Detected	
Chrysene	1.0	Not Detected	
Benzo(a)anthracene	1.0	Not Detected	
bis(2-Ethylhexyl)phthalate	5.0	1.9 J	1J
Di-n-Octylphthalate	5.0	Not Detected	
Benzo(b)fluoranthene	1.0	Not Detected	
Benzo(k)fluoranthene	1.0	Not Detected	
Benzo(a)pyrene	1.0	Not Detected	
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected	
Dibenz(a,h)anthracene	1.0	Not Detected	
Benzo(g,h,i)perylene	1.0	Not Detected	

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	54	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	88	50-150
2-Fluorobiphenyl	91	60-120
2,4,6-Tribromophenol	98	50-150
Terphenyl-d14	93	60-120

LH
7/26/02

June 28, 2002 Off-Gas Sample (Round 4)
Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-004A

ID#: 0206594A-01A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	7.3	15	180	370
Vinyl Chloride	7.3	19	440	1100
Bromomethane	7.3	29	Not Detected	Not Detected
Chloroethane	7.3	20	170	450
1,1-Dichloroethene	7.3	29	32	130
Methylene Chloride	7.3	26	130	450
1,1-Dichloroethane	7.3	30	58	240
cis-1,2-Dichloroethene	7.3	29	810	3300
Chloroform	7.3	36	1.2 J /J	6.0 J
1,1,1-Trichloroethane	7.3	40	15	84
Carbon Tetrachloride	7.3	47	Not Detected	Not Detected
Benzene	7.3	24	1700	5600
1,2-Dichloroethane	7.3	30	Not Detected	Not Detected
Trichloroethene	7.3	40	8.4	46
1,2-Dichloropropane	7.3	34	4.5 J /J	21 J
cis-1,3-Dichloropropene	7.3	34	Not Detected	Not Detected
Toluene	7.3	28	640	2500
trans-1,3-Dichloropropene	7.3	34	Not Detected	Not Detected
1,1,2-Trichloroethane	7.3	40	Not Detected	Not Detected
Tetrachloroethene	7.3	50	6.9 J /J	47 J
Chlorobenzene	7.3	34	80	370
Ethyl Benzene	7.3	32	93	410
m,p-Xylene	7.3	32	460	2000
o-Xylene	7.3	32	130	570
Styrene	7.3	32	22	94
1,1,2,2-Tetrachloroethane	7.3	51	Not Detected	Not Detected
Acetone	29	70	48	120
Carbon Disulfide	29	92	7.2 J /J	23 J
trans-1,2-Dichloroethene	29	120	54	220
2-Butanone (Methyl Ethyl Ketone)	29	88	32	97
Bromodichloromethane	29	200	Not Detected	Not Detected
4-Methyl-2-pentanone	29	120	10 J /J	42 J
2-Hexanone	29	120	Not Detected	Not Detected
Dibromochloromethane	29	250	Not Detected	Not Detected
Bromoform	29	310	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

UA 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-004A

ID#: 0206594A-01A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-004A

ID#: 0206594A-02A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	67	140	Not Detected	Not Detected
Vinyl Chloride	67	170	3900	10000
Bromomethane	67	260	Not Detected	Not Detected
Chloroethane	67	180	2000	5300
1,1-Dichloroethene	67	270	25 J /J	100 J
Methylene Chloride	67	240	860	3000
1,1-Dichloroethane	67	280	780	3200
cis-1,2-Dichloroethene	67	270	7700	31000
Chloroform	67	330	12 J /J	57 J
1,1,1-Trichloroethane	67	370	340	1900
Carbon Tetrachloride	67	430	Not Detected	Not Detected
Benzene	67	220	14000	46000
1,2-Dichloroethane	67	280	Not Detected	Not Detected
Trichloroethene	67	360	68	370
1,2-Dichloropropane	67	310	60 J /J	280 J
cis-1,3-Dichloropropene	67	310	Not Detected	Not Detected
Toluene	67	260	7600	29000
trans-1,3-Dichloropropene	67	310	Not Detected	Not Detected
1,1,2-Trichloroethane	67	370	Not Detected	Not Detected
Tetrachloroethene	67	460	31 J /J	220 J
Chlorobenzene	67	310	570	2700
Ethyl Benzene	67	300	1600	6800
m,p-Xylene	67	300	8400	37000
o-Xylene	67	300	2200	9600
Styrene	67	290	63 J /J	270 J
1,1,2,2-Tetrachloroethane	67	470	Not Detected	Not Detected
Acetone	270	650	350	850
Carbon Disulfide	270	850	Not Detected	Not Detected
trans-1,2-Dichloroethene	270	1100	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	270	800	200 J /J	610 J
Bromodichloromethane	270	1800	Not Detected	Not Detected
4-Methyl-2-pentanone	270	1100	240 J /J	1000 J
2-Hexanone	270	1100	Not Detected	Not Detected
Dibromochloromethane	270	2300	Not Detected	Not Detected
Bromoform	270	2800	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1-004A

ID#: 0206594A-02A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

File Name: 07	Date of Collection: 6/28/02
Dil. Factor: 1.3	Date of Analysis: 7/11/02

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	95	70-130

LH
7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-004A

ID#: 0206594A-03A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Chloromethane	67	140	Not Detected	Not Detected
Vinyl Chloride	67	170	4600	12000
Bromomethane	67	260	Not Detected	Not Detected
Chloroethane	67	180	2300	6200
1,1-Dichloroethene	67	270	29 J /J	120 J
Methylene Chloride	67	240	1200	4400
1,1-Dichloroethane	67	280	970	4000
cis-1,2-Dichloroethene	67	270	10000	41000
Chloroform	67	330	13 J /J	65 J
1,1,1-Trichloroethane	67	370	410	2300
Carbon Tetrachloride	67	430	Not Detected	Not Detected
Benzene	67	220	17000	55000
1,2-Dichloroethane	67	280	Not Detected	Not Detected
Trichloroethene	67	360	89	490
1,2-Dichloropropane	67	310	87	410
cis-1,3-Dichloropropene	67	310	Not Detected	Not Detected
Toluene	67	260	12000	45000
trans-1,3-Dichloropropene	67	310	Not Detected	Not Detected
1,1,2-Trichloroethane	67	370	Not Detected	Not Detected
Tetrachloroethene	67	460	31 J /J	210 J
Chlorobenzene	67	310	820	3800
Ethyl Benzene	67	300	2300	10000
m,p-Xylene	67	300	12000	53000
o-Xylene	67	300	3300	15000
Styrene	67	290	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	67	470	Not Detected	Not Detected
Acetone	270	650	400	970
Carbon Disulfide	270	850	Not Detected	Not Detected
trans-1,2-Dichloroethene	270	1100	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	270	800	240 J /J	720 J
Bromodichloromethane	270	1800	Not Detected	Not Detected
4-Methyl-2-pentanone	270	1100	330	1400
2-Hexanone	270	1100	Not Detected	Not Detected
Dibromochloromethane	270	2300	Not Detected	Not Detected
Bromoform	270	2800	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

LH 7/26/06

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2-004A

ID#: 0206594A-03A

MODIFIED EPA METHOD TO-14 GC/MS FULL SCAN

File Name:	070320	Date of Collection:	6/28/02
Dil. Factor:	1.5	Date of Analysis:	7/2/02

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	95	70-130

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-004A

ID#: 0206594B-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)	
Phenol	5.0	Not Detected	
bis(2-Chloroethyl) Ether	1.0	Not Detected	
2-Chlorophenol	5.0	Not Detected	
1,3-Dichlorobenzene	1.0	Not Detected	
1,4-Dichlorobenzene	1.0	1.5	
1,2-Dichlorobenzene	1.0	2.3	
2-Methylphenol (o-Cresol)	5.0	Not Detected	
N-Nitroso-di-n-propylamine	1.0	Not Detected	
4-Methylphenol	5.0	Not Detected	
Hexachloroethane	1.0	Not Detected	
Nitrobenzene	1.0	Not Detected	
Isophorone	1.0	Not Detected	
2-Nitrophenol	5.0	Not Detected	
2,4-Dimethylphenol	5.0	Not Detected	
bis(2-Chloroethoxy) Methane	1.0	Not Detected	
2,4-Dichlorophenol	5.0	Not Detected	
1,2,4-Trichlorobenzene	1.0	0.38 J	/J
Naphthalene	1.0	0.41 J	/J
4-Chloroaniline	10	Not Detected	
Hexachlorobutadiene	1.0	Not Detected	
4-Chloro-3-methylphenol	5.0	Not Detected	
2-Methylnaphthalene	1.0	Not Detected	
Hexachlorocyclopentadiene	20	Not Detected	
2,4,6-Trichlorophenol	5.0	Not Detected	
2,4,5-Trichlorophenol	5.0	Not Detected	
2-Chloronaphthalene	1.0	Not Detected	
2-Nitroaniline	10	Not Detected	
Dimethylphthalate	5.0	Not Detected	
Acenaphthylene	1.0	Not Detected	
2,6-Dinitrotoluene	5.0	Not Detected	
3-Nitroaniline	10	Not Detected	
Acenaphthene	1.0	Not Detected	
2,4-Dinitrophenol	20	Not Detected	
4-Nitrophenol	20	Not Detected	
2,4-Dinitrotoluene	5.0	Not Detected	
Dibenzofuran	1.0	Not Detected	
Diethylphthalate	5.0	0.47 J	/JB
Fluorene	1.0	Not Detected	
4-Chlorophenyl-phenyl Ether	1.0	Not Detected	
4-Nitroaniline	10	Not Detected	
4,6-Dinitro-2-methylphenol	10	Not Detected	

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-EF1-004A

ID#: 0206594B-01A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	101	50-150
Phenol-d5	95	50-150
Nitrobenzene-d5	80	50-150
2-Fluorobiphenyl	86	60-120
2,4,6-Tribromophenol	112	50-150
Terphenyl-d14	93	60-120

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1 004A

ID#: 0206594B-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

[redacted]

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	1.7
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	2.7
1,4-Dichlorobenzene	1.0	27
1,2-Dichlorobenzene	1.0	46
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	6.2
Naphthalene	1.0	13
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	6.9
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	0.52 J
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

JB

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN1 004A

ID#: 0206594B-02A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File ID:	2K07080	Date of Collection: 6/28/02
Dil. Fac.:	1.0	Date of Analysis: 7/8/02
		Date of Extraction: 7/5/02

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	1.2 J NJ
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.
Q = Exceeds Quality Control limits.
Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	44 Q	50-150
Phenol-d5	70	50-150
Nitrobenzene-d5	77	50-150
2-Fluorobiphenyl	76	60-120
2,4,6-Tribromophenol	61	50-150
Terphenyl-d14	81	60-120

LA 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2 004A

ID#: 0206594B-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File N[redacted]	k070808	Date of Collection:	6/28/02
Dil Fa[redacted]	10.0	Date of Analysis:	7/8/02
		Date of Extraction:	7/1/02

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

LH 7/26/02

AIR TOXICS LTD.

SAMPLE NAME: ACS-ME 106-IN2 004A

ID#: 0206594B-03A

MODIFIED EPA METHOD TO-13 GC/MS FULL SCAN

File Name:	k070809	Date of Collection:	6/28/02
Dil. Factor:	1.00	Date of Analysis:	7/8/02
		Date of Extraction:	7/1/02

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: XAD Tube: VOST

Surrogates	%Recovery	Method Limits
2-Fluorophenol	99	50-150
Phenol-d5	89	50-150
Nitrobenzene-d5	83	50-150
2-Fluorobiphenyl	84	60-120
2,4,6-Tribromophenol	92	50-150
Terphenyl-d14	88	60-120

LH 7/2/02